World Congress of WFMISS Istanbul
combined with
7th - 8th Turkmiss Meeting &
Pre-congress Cadaver Workshop

ABSTRACT BOOK

WCWFMISS

WORLD CONGRESS OF
WORLD FEDERATION OF MINIMALLY
INVASIVE SPINE SURGERY
ISTANBUL

08-13 APRIL 2014

ISTANBUL

Polat Renaissance Hotel Yeşilköy / Istanbul
www.wfmisstanbul.org

OMURGA MİNİMAL İNVAZİV VE GİRİŞİMSEL CERRAHİ DERNEĞİ
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WFMISS About

From 2008, when Dr. Sang Ho Lee, from South Korea, idealized and organized the World Congress of Minimally Invasive Spine Surgery & Techniques (WCMISST) in Hawaii (USA), minimally invasive techniques for spine surgeries have steadily turned into a major focus of attention on the international stage. Dr. Sang Ho Lee has established himself as a global leader and visionary in the development and propagation of these surgeries.

The gathering of orthopedic surgeons, neurosurgeons and interventional pain specialists under the same roof, the WCMISST, and the concept of "Minimal Aggression and Maximum Effectiveness", as envisaged by Dr. Sang Ho Lee, have both come to fruition. Thanks to this initiative, thousands of patients have since benefited from minimally aggressive treatments and, as a result, been able to quickly resume their regular activities.

Thereafter, in 2010, Dr. Anthony Yeung organized the II WCMISST in Las Vegas, USA, following the same productive approach of the first Congress.

For the first time ever outside the USA, the III WCMISST was held in August of 2012, in Bahia (Brazil), under the chairmanship of Dr. Pil Sun Choi, who had the privilege of bringing together more than 720 experts from 32 countries. The vibrant atmosphere of the III WCMISST fostered the enthusiastic interaction of its participants, thereby ensuring the success of the Congress on all counts. The III WCMISST was a social, political and scientific success.

The support from entities such as SICCMI, WIP and NASS, as well as from traditional supporters (ISMISS, SMISS, IITS, SLAOT, BRAMISS, ISIS and others), has shown that the future of the Spine Surgery lies in the minimally aggression techniques, applied to all fields of spine pathology: degenerative, deformity, trauma, tumor and infection.

During the III WCMISST, the WFMISS was founded by General Assembly, which convened as a WCMISST official activity on August 16th congregate the several Minimally Invasive Spine Surgery Societies from all over the world, as well as to ensure the continuity of the WCMISST started by Dr. Sang Ho Lee, led to the establishment of the Federation.

The secretary of WFMISS is currently based in São Paulo and a legal consulting firm has been hired to assist with elaborating the constitution of the entity.

We know that consolidating the WFMISS will not be an easy task. For this reason, your help is essential to the strengthening and representativeness of our young Federation!

Pil Sun Choi, M.D.
Founder President of WFMISS

FOUNDER OFFICERS OF THE WFMISS

• Honorary Presidents

Anthony T. Yeung	USA	President of II WCMISST
Greg Anderson	USA	President of SMISS 2012
Hansjoerg Leu	Switzerland	President of ISMISS (2009/11)
Helton Defino	Brazil	Honorary President III WCMISST
Jorge Felipe Ramirez	Colombia	President of SLAOT
José Antonio Soriano Sanchez	Mexico	President of SICCMI
Michael Heggeness	USA	President of NASS
Paulo de Carvalho	Brazil	Electec President of BMISSC
Ramiro Ramirez	Mexico	President of IITS
Ricardo Ruiz Lopez	Spain	President of WIP
Sang Ho Lee	South Korea	President of I WCMISST
Tarcísio E. P. Barros Filho	Brazil	Honorary President III WCMISST

• Honorary Vice Presidents

Akira Dezawa	Japan	Vice President of III WCMISST
Armando Alpizar	Mexico	Scientific Board member of III WCMISST
Bambang Darwono	Indonesia	Vice President of III WCMISST
Carlos Todaro	Italy	International Guest Speaker of III WCMISST
Choll Kim	USA	Scientific Board member of III WCMISST
Christof Birkenmaier	Germany	Scientific Board member of III WCMISST
Cristiano Menezes	Brazil	Vice President of BMISSC
Daniel Gastambide	France	Scientific Board member of III WCMISST
Daniel Kim	USA	Scientific Board member of III WCMISST
Eugene Wong	Malasya	International Guest Speaker of III WCMISST
Fujio Ito	Japan	Scientific Board member of III WCMISST
Gilles Dubois	France	Vice President of III WCMISST
Gun Choi South	Korea	Vice President of III WCMISST
Hyeun Sung Kim	Korea	Secretary of KOMISS
Jean Destandau	France	Vice President of III WCMISST
John Chiu	USA	Vice President of III WCMISST
Kevin Foley	USA	Vice President of III WCMISST

Luiz Pimenta	Brazil	Scientific Board member of III WCMISST
Marcos Baabor	Chile	Scientific Board member of III WCMISST
Paulo Pereira	Portugal	Scientific Board member of III WCMISST
Raphael Marcon	Brazil	Executive member of III WCMISST
Richard Fessler	USA	Scientific Board member of III WCMISST
Rudolf Morgenstern	Spain	Vice President of III WCMISST
Shrinivas Rohidas	India	International Guest Speaker of III WCMISST
Stefan Hellinger	Germany	Scientific Board member of III WCMISST
Stephan Joubert	South Africa	Scientific Board member of III WCMISST
Tolgay Satana	Turkey	Vice President of III WCMISST
Uwe Vieweg	Germany	Scientific Board member of III WCMISST
Vladimir Radchenko	Ukraine	President of Ukraine ISMISS
William Taylor	USA	Scientific Board member of III WCMISST
Yong Eun Cho	South Korea	Vice President of III WCMISST

OFFICERS OF THE FEDERATION

- President: Pil Sun Choi
- First Vice-President: Paulo de Carvalho
- Second Vice-Presidents:
- Secretary: Alexandre Fogaça Cristante
- Assistant Secretary: Marcelo Perocco
- Treasurer: Wilson Dratcu
- Assistant Treasurer: Adriano Scaff Garcia
- Historian: Carlos Drummond
- President of the Congress: Tolgay Satana

Pil Sun Choi
Fouding President Of Wfmiss

WFMISS PRESIDENTIAL MESSAGE

The World Federation of Minimally Invasive Spine Surgery (WFMISS) was founded by General Assembly on August 16th of 2012 in Praia do Forte, Bahia, Brazil, during the III World Congress of Minimally Invasive Spine Surgery & Techniques (WCMISST). The need to congregate several International Societies of Minimally Invasive Spine Surgery (SICCMI, ISMISS, IITS, PAMISS, WENMISS, NASS, WIP, etc.) and National Societies (BRAMISS, MEXMISS, AAMISS, TURKMISS, KOSMISS, TAIWAN MISS, INDONESIA MISS, JAPAN MISS, etc.) from all over the World as well as to ensure the continuity of the World Congress of Minimally Invasive Spine Surgery started by Sang Ho Lee led to the establishment of the Federation.

At the Executive Committee of WFMISS meeting held on October 6th, 2013 in Guanajuato, Mexico, during the V Congress of SICCMI, decided to support Istanbul – Turkey, under the Presidency of Tolgay Satana to organize the First World Congress of WFMISS (WCWFMISS) accomplished together with the 7TH TURKMISS Congress.

Istanbul has been chosen to host the First World Congress of MISS under the auspice of the WFMISS because of its geographic localization (between the western and eastern) and for the outstanding work Turkey has been doing on promoting the minimally invasive spine surgery.

The First WCWFMISS above all and everything will be based on respect and cherish for human life, people and our patients, fully appreciating and honoring the diversity we shall encounter, always bearing in mind that our work is solely devoted and dedicated to our fellows human beings. Always in the spirit of full transparency and on the basis of the highest ethical principles, we shall endeavor to explore all resources available – including social, academic, scientific and industrial resources – in our effort to continually advance and perfect the treatment of spine disease, and to develop and use less invasive techniques.

Welcome Message

Tolgay Şatana
(President Of World Congress
WFMISS İstanbul 2014)

"Integrity is choosing your thoughts and actions based on values rather than personal gain in addition to honoring its commitments."

Dear Colleagues,

We now have a new mission regarding this historical finding: we must ensure that this surgery is featured in the basic spine education curriculum for resident trainning. In doing so, we must determine the details in our councils and unite the scattered unions to agree on common ground. The philosophy behind the federation formed around this point. We all agreed on this introduction: "Integrity is choosing your thoughts and actions based on values rather than personal gain in addition to honoring its commitments." Although not much time has passed since we founded the World Federation in August 2012, this ideal dates much further back. The endoscopic spinal surgery techniques that will bring in a new era in spinal surgery have been applied for a quarter century. The initial suspicious resistance of traditional surgery broke over the years with successful treatments and evidence-based medical publications. Percutaneous endoscopy has now taken its place among the basic surgical methods. One of the creators of the method, Parwiz Kambin was honored just last month and the minimal invasive spine surgery recognized by Philadelphia College of Physicians. He took his place in medical history as one of the rare scientists to have his statue exhibited in the Mütter Museum during his lifetime.

Come and let us convene at a round table under the scope of a federation that respects all national and association functions.

It would not be a coincidence for this event, crowned with the first meeting of our eight-year-old scientific conference event, World Congress of Minimally Invasive Spine Surgery, to take place in Istanbul, the melting pot of cultures where two continents meet.

Let me remind you queto is Napoleon Bonaparte said:

"If the world were only one nation, its capital would be Istanbul."

About Istanbul

Istanbul, once known as the capital of capital cities, has many unique features. It is the only city in the world to straddle two continents, and the only one to have been a capital during two consecutive empires – Christian and Islamic. Once capital of the Ottoman Empire, Istanbul still remains the commercial, historical and cultural pulse of Turkey, and its beauty lies in its ability to embrace its contradictions. Ancient and modern, religious and secular, Asia and Europe, mystical and earthly all co-exist here.

Its variety is one of Istanbul's greatest attractions: The ancient mosques, palaces, museums and bazaars reflect its diverse history. The thriving shopping area of Taksim buzzes with life and entertainment. And the serene beauty of the Bosporus, Princes Islands and parks bring a touch of peace to the otherwise chaotic metropolis.

Golden Horn: This horn-shaped estuary divides European Istanbul. One of the best natural harbors in the world, it was once the centre for the Byzantine and Ottoman navies and commercial shipping interests. Today, attractive parks and promenades line the shores, a picturesque scene especially as the sun goes down over the water. At Fener and Balat, neighborhoods midway up the Golden Horn, there are entire streets filled with old wooden houses, churches, and synagogues dating from Byzantine and Ottoman times. The Orthodox Patriarchy resides at Fener and a little further up the Golden Horn at Eyup, are some wonderful examples of Ottoman architecture. Muslim pilgrims from all over the world visit Eyup Camii and Tomb of Eyup, the Prophet Mohammed's standard bearer, and it is one of the holiest places in Islam. The area is a still a popular burial place, and the hills above the mosque are dotted with modern gravestones interspersed with ornate Ottoman stones. The Pierre Loti Cafe, atop the hill overlooking the shrine and the Golden Horn, is a wonderful place to enjoy the tranquility of the view.

Beyoglu and Taksim: Beyoglu is an interesting example of a district with European-influenced architecture, from a century before. Europe's second oldest subway, Tunel was built by the French in 1875, must be also one of the shortest – offering a one-stop ride to start of Taksim. Near to Tunel is the Galata district, whose Galata Tower became a famous symbol of Istanbul, and the top of which offers a tremendous 180 degree view of the city.

From the Tunel area to Taksim square is one of the city's focal points for shopping, entertainment and urban promenading: Istiklal Cadesi is a fine example of the contrasts and compositions of Istanbul; fashion shops, bookshops, cinemas, markets, restaurants and even hand-carts selling trinkets and simit (sesame bread snack) ensure that the street is packed throughout the day until late into the night. The old tramcars re-entered into service, which shuttle up and down this fascinating street, and otherwise the street is entirely pedestrians. There are old embassy buildings, Galatasaray High School, the colorful ambience of Balik Pazari (Fish Bazaar) and restaurants in Cicek Pasaji (Flower Passage). Also on this street is the oldest church in the area, St Mary's Draperis dating back to 1789, and the Franciscan Church of St Antoine, demolished and then rebuilt in 1913.

The street ends at Taksim Square, a huge open plaza, the hub of modern Istanbul and always crowded, crowned with an imposing monument celebrating Ataturk and the War of Independence. The main terminal of the new subway is under the square, adjacent is a noisy bus terminal, and at the north end is the Ataturk Cultural Centre, one of the venues of the Istanbul Theatre Festival. Several five-star hotels are dotted around this area, like the Hyatt, Intercontinental and Hilton (the oldest of its kind in the city). North of the square is the Istanbul Military Museum.

Taksim and Beyoglu have for centuries been the centre of nightlife, and now there are many lively bars and clubs off Istiklal Cadesi, including some of the only gay venues in the city. Beyoglu is also the centre of the more bohemian arts scene.

Sultanahmet: Many places of tourist interest are concentrated in Sultanahmet, heart of the Imperial Centre of the Ottoman Empire. The most important places in this area, are Topkapi Palace, Aya Sofia, Sultan Ahmet Camii (the Blue Mosque), the Hippodrome, Kapali Carsi (Covered Market), Yerebatan Sarnici and the Museum of Islamic Art.

In addition to this wonderful selection of historical and architectural sites, Sultanahmet also has a large concentration of carpet and souvenir shops, hotels and guesthouses, cafes, bars and restaurants, and travel agents.

Ortaköy: Ortakoy was a resort for the Ottoman rulers because of its attractive location on the Bosporus, and is still a popular spot for residents and visitors. The village is within a triangle of a mosque, church and synagogue, and is near Ciragan Palace, Kabatas High School, Feriye, and Princess Hotel.

The name Ortakoy reflects the university students and teachers who would gather to drink tea and discuss life, when it was just a small fishing village. These days, however, that scene has developed into a suburb with an increasing amount of expensive restaurants, bars, shops and a huge market. The fishing, however, lives on and the area is popular with local anglers, and there is now a huge waterfront tea-house which is crammed at weekends and holidays.

Wondering more about Istanbul and Turkey? Below, you will find links to web pages that may help you during your visit. The information below is intended to give you brief understanding about where you will be during the ISMISS 2009.

http://goturkey.turizm.gov.tr/

This website is a comprehensive source of information if you would like to learn in depth. The ministry of Tourism and Culture runs the website.

http://www.mfa.gov.tr/

The website of Ministry of Foreign Affairs' website is also full of information. You can also reach the Consular information through the website.

http://www.turizm.net/cities/istanbul/

Turizm.net is known as a commercial website but there is a lot to find out about.

http://www.timeout.com/istanbul/

The well-known website has full coverage on Istanbul, definitely worth looking at.

NY Times Travel Guide: Istanbul

A very good and unbiased guide for Istanbul. New York Times has also a different perspective.

We would urge you to buy catalogues, guides, etc., if you would like to, from approved booksellers and agencies with TURSAB logo on or Ministry of Tourism and Culture Souvenirs shops that are available at historical sites. This is only to keep participants safe from fraud and illegal publications.

If you would like to receive more information, please, let the organizers know.

COMBINED WITH
7TH TURKMISS MEETING & PRE-CONGRESS CADAVER WORKSHOPS
ISTANBUL
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Cadaver Course

Pre-Congress Cadaver Hands-on Workshops
will be held on April 9,2014


April 9, 2014 / Wednesday

Interactive Live Surgery & Course

Lectures
- Applied Anatomy of the Spine
- Endoscopic Foraminal Anatomy
- Anatomical and Surgical Landmarks
- Basic principles of the MISS
- Surgical Techniques of Percutaneous Cervical
- Surgical Techniques of Percutaneous Thoracic Discectomy
- Pe-TLIF Anatomical Discussion

Live Surgery "Lomber Transforaminal Discectomy and Foraminoplasty"
- 3 cases "Live from Istanbul"




Cadaver Course

"Hands-on Cadaver Course Instructions – Basic Techniques"

- "Foraminal and Endoscopic Spinal Anatomy"

Instructors: John Chiu – Stefan Hellinger – Tolgay Şatana – Thomas Luebbers

Course Goal: To become fully conversant with and receive first phase training on how to perform foraminal and endoscopic spinal surgeries. After completing this course the participants should be able to perform the surgical procedure on their patients.

Maximum participant: Limited with 50 participants

Equipment: C-arm, fresh cadaver, endoscopic tower and leaded aprons will be provided during the course. Participants are advised to bring their own hand sets and protective eye wear.

Awards

2013 TURKMISS BEST PAPER AWARDS

OMID as a non-profit society, undertakes the mission of awarding the Free-Papers, providing Fellowships and organizing Cadaver Courses before the Congress for 5 years. Meaning of these awards is to improve the interest on the "Evidence Based Studies" for the Surgeons who have been and have a desire to work on Minimal Invasive Spine Surgery all around the world.

TURKMISS Minimal Invasive Spine Surgery Awards is one of the major awards of the Turkish Minimal Invasive Spine Surgery Society since 2009.

Traditionally the Nominees are chosen from the Free-Paper applications to our Congress. And the Committee has been comprised by the Presenters of our previous Congress and who has proved his/her profession on Minimal Invasive Spine Surgery.

The Awards are dedicated to the Pioneers of the MISS as given below;

Adam Shreiber
Innovated Paper Award 1000 Euro

Parviz Kambin
Best Presentation Award 1500 Euro

Sadahisa Hijikata
Best Research Award 3000 Euro

COMMITTEE

• Honorary Presidents Of WCWFMISS


O. Sahap Atik, M.D. (President of Turkish Joint Diseases Foundation)


Prof. Dr. Paulo De Carvalho (President of BRAMISS)


José Antonio Soriano Sanchez (President of SICCMI)


John Chiu (President AAMISS)


Jorge Ramirez

• Vice Honorary Presidents


Paulo Pereira


Hyeun Sung Kim


Carlo Antonio Todaro


Shahaydar Shatursunov


Nizar Natout


Robert Saftic


Alper Muradov


Tony Taneury


Mohammed Mohi Eldin

• President


Murat Ergüven (President Of Turkish Society Of Minimal Invasive Spine Surgery(OMID))

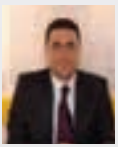
• Turkmiss Congress Presidents


İbrahim Yegül (7th TURKMISS Congress President)


Murat Bezer (8th TURKMISS Congress President)


Ayhan Cömert (6th TURKMISS Congress President)


Oğuz Karaeminoğulları (9th TURKMISS Congress President)


Burkay Kaçıra (10th TURKMISS Congress President)


Çağatay Öztürk (11th TURKMISS Congress President)

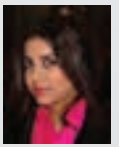
• Scientific Secretaries


Kemal Tolga Saraçoğlu (Anesthesiology and Reanimation Specialist)


Ayten Saraçoğlu (Anesthesiology and Reanimation Specialist)


Serdar Şirazi (Orthopaedic Surgeon)

• Organizing Secretaries


Paria Yarikhah (Organization Coordinator in Turkey)


Onur Gozupek (Organization Coordinator in Turkey)


Mariana Caporrino (Organization Coordinator in Brasil)

SOCIETIES

INTERNATIONAL MISS & PAIN SOCIETIES

• **SICCMI** (Sociedad Interarmericana de Cirugia de Columna Minimamente Invasiva)
President: José Antonio Soriano Sanchez (México)
Elected President: Jorge Ramirez (Colombia)

• **ISMISS** (International Society for Minimal Invasion Spine Surgery)
President: Sang Ho Lee (South Korea)
Elected President: Vladimir Radchenko (Ukraine)

• **IITTS** (International Intradiscal and Transforaminal Therapy Society)
President: Gun Choi (South Korea)
Society for Minimal Invasive and Instrumented Spine Surgery of Ukraine
President: Vladimir Radchenko (Ukraine)

• **SMISS** (Society for Minimal Invasion Spine Surgery)
President: Greg Anderson (USA) www.smiss.org

• **WIP** (World Institute of Pain)
President: Richard L. Rauck www.worldinstituteofpain.org
Past President: Ricardo Ruiz Lopez

• **WENMISS**
President: Arvind Jayaswal (India) www.wenmiss2013.com

• **PASMISS**
President: Ming Chau Chang (Taiwan) www.pasmiss.org.tw

• **ISASS**
President: Luiz Pimenta (Brasil)

• **S.P.I.N.E**
President: Tonny Tannoury (USA/Lebanon)

PRESIDENTS OF THE NATIONAL MISS SOCIETIES

• **BRAMISS** (Brazilian Minimally Invasive Spine Society – BRAMISS)
President: Paulo de Carvalho

• **KOSMISS**
President: Hyeun Sung Kim

• **TURKMISS**
President: Murat Ergüven

• **INDONESIA MISS**
President: Bambang Darwono

• **ARGENTINA MISS**
President: Gabriel Calle

• **CHILEAN MISS**
President: Marcos Baabor

• **PORTUGAL MISS**
President: Paulo Pereira

• **UKRAINE SMIISS**
Vladimir Radchenko (Ukraine)

• **WCWFMISS**
President: TOLGAY SATANA

Honorary Presidents:

- Paulo de Carvalho (Brasil)
- José Antonio Soriano Sanchez (Mexico)
- Sang Ho Lee (South Korea)
- Anthony Yeung (USA)

Scientific Committees

TURKMISS

Dr. Halil Algan
Dr. O. Şahap Atik
Dr. Kamil Barlas
Dr. Murat Bezer
Dr. Burcu Candan
Dr. Ayhan Comert
Dr. Alaittin Elhan
Dr. Elvan Erhan
Dr. Murat Erguven
Dr. İsmail Gökyar
Dr. Burkay Kutluhan Kaçıra
Dr. Oğuz Karaeminoğulları
Dr. Çağatay Öztürk
Dr. Tolga Saraçoğlu
Dr. Tolgay Şatana
Dr. Serdar Şirazi
Dr. İbrahim Tekdemir
Dr. Taylan Temel
Dr. Mehmet Ali Tumoz

SICCMI

Dr. José Antonio Soriano – Scientific Program Director
Dr. Jorge Felipe Ramírez – Colombia
Dr. Enrique Osorio – Colombia
Dr. Marcos Baabor – Chile
Dr. Alvaro Dowling – Chile
Dr. Paulo de Carvalho – Brasil
Dr. Wilson Dratcu – Brasil
Dr. Manuel Rodríguez García – México
Dr. Carl Bruce – Caribbean and Central America
Dr. Ricardo Santamaria – Caribbean and Central America
Dr. Kai-Uwe Lewandrowsky – U.S.A.
Dr. John Chiu – U.S.A.
Dr. Richard Fessler – U.S.A.

Faculty List

Akkaya Taylan
Akinci Ozkan
Algan Halil
Aydin Yunus
Barlas Kamil
Bezer Murat
Brucher Dirk
Calli Cem
Candan Burcu
Carvalho Paulo de
Chiu John C.
Choi Pil Sun
Chung Chun Kee
Cimen Melda
Darwono Bambang
Dezawa Akira
Dratcu Wilson
Eldin Mohamed Mohi
Erhan Elvan
Erguven Murat
Fujiwara Yasushi
Gokce Alper
Gore Satischandra
Hellinger Stefan
Hoogland Thomas
Ito Fujio
Kacira Burkay
Kanpolat Yucel
Kaptan Hulagu
Katzell Jeff
Kim Daniel H.
Kim Hyeun Sung
Kim Kyung-Hoon
Knight Martin
Lubbers Thomas
Menezes Cristiano
Muradov Alper
Natout Nizar
Osman Said
Ozdemir Mevci
Ozgur Burak M.
Paulo Pereira
Ramirez Gutierrez Ramiro
Ruiz-Lopez Ricardo
Saftic Robert
Saracoglu Tolga (Istanbul, Turkey)
Satana Tolgay (Istanbul, Turkey)
Shatursunov Shahaydar
Shepperd John
Shiraishi Tateru
Temel Taylan
Weixing Shao
Wilson Lester
Xi Ren Lung
Yegul Ibrahim
Zheng Zhaomin
Zhou Yue

Invited Speakers

Abdi Salahadin
Abi Dick Breucher
Abumi Kuniyoshi
Akkaya Taylan
Akinci Ozkan
Algan Halil
Ali Dalkıç
Altan Şahin
Alvaro Dowling
Barlas Kamil
Barzilay Yair
Bezer Murat
Bhave Arvind
Birkenmaier Christof
Brucher Dirk
Calli Cem
Candan Burcu
Carl Bruce
Carlos Gutierrez
Carlos Montes
Carvalho Paulo de
Chiu John C.
Choi Gun
Choi Pil Sun
Chung Chun Kee
Comert Ayhan
Darwono Bambang
De Carvalho Paulo
Dezawa Akira
Dratcu Wilson
Dubois Gilles
Eldin Mohamed Mohi
Erhan Elvan
Erguven Murat
Fessler Richard
Fujiwara Yasushi
Gastambide Daniel
Girish Datar
Gokce Alper
Gore Satischandra
Halil İbrahim Açar
Hellinger Stefan
Hoogland Thomas
Ito Fujio
İsmail Gökyar
İbrahim Aşık
Jacquot Frederic
Jeff Katzell
Jose Antonio Soriano
Kacira Burkay
Kanpolat Yucel
Kim Daniel H.
Kim Hyeun Sung
Kim Kyung-Hoon
Knight Martin
Lee Sang Ho
Leu Hansjoerg
Lubbers Thomas
Marcelo Perez
Marcelo Perocco
Marcos Baabor
Menezes Cristiano
Muradov Alper
Natout Nizar
Osman Said
Ozgur Burak M.
Paulo Pereira
Radchenko Vladimir
Ramirez Gutierrez Ramiro
Rauschning Wolfgang
Roberto Cantu
Roberto Diaz
Robert Pflugmacher
Ruiz-Lopez Ricardo
Saftic Robert
Sait Osman
Saracoglu Tolga (Istanbul, Turkey)
Satana Tolgay (Istanbul, Turkey)
Shatursunov Shahaydar
Shepperd John
Shiraishi Tateru
Sirazi Serdar
Solomon Kamson
Şahap Atik
Temel Taylan
Todaro Carlo A.
Tony Tannoury
Tumoz Mehmet Ali
Vilademaro Volcan
Weixing Shao
Wilson Lester
Xi Ren Lung
Yegul Ibrahim
Yeung Anthony T
Yeşim Kirazlı
Yoshida Munehito
Yuan Hansen
Zheng Zhaomin
Zhou Yue

COMBINED WITH
7TH TURKMISS MEETING & PRE-CONGRESS CADAVER WORKSHOPS
ISTANBUL
08-13 APRIL 2014

PROGRAM

April 10, 2014 – Thursday		
09:00 – 10:00	Opening Ceremony	
09:00 – 09:10	Openning Ceremony — Tolgay Satana	Tolgay Satana
09:10 – 09:20	Presidential Address — Pil Sun Choi/Tolgay Satana/O. Sahap Atik	Choi / Satana / Atik
1st Session	Moderators: *Tolgay Satana / Paula de Carvalho*	
09:20 – 09:40	MISS & WFMISS	Pil Sun Choi
09:40 – 09:50	Minimally Invasive Spine Surgery in Brasil	Wilson Dratcu
09:50 – 10:00	The Crisis in health system: Critical analysis & projection of MISS	Paulo de Carvalho
10:10 – 10:20	Does Laser Energy Cause Damage In Cartilage and Bone	O. Sahap Atik
10:20 – 10:30	MISS Option in Lumbar Spondylolysis	David Del Curto
10:30 – 10:50	Coffee Break	
2nd Session	**Moderators: *Pil Sun Choi / O. Sahap Atik***	
10:50 – 11:00	Contribution of thoraco-lumbar lateral accesses to the Minimally Invasive Spine Surgery	Ildemaro Volcan
11:00 – 11:10	Transoperative neuromonitoring during MISS	Ildemaro Volcan
11:10 – 11:20	Lumbar Percutaneous Discectomy in Brasil	Paulo de Carvalho
11:20 – 11:30	Minimally Invasive Interbody Fusion Techniques	Paulo Pereira
11:30 – 11:40	Endoscopic radiofrequency adhesiolysis for failed back surgery	Paulo Pereira
11:40 – 11:45	Discussion	
3rd Session	Moderators: *Burkay Kacira / Kyun-Hoon Kim*	
11:45 – 11:55	Endoscopic Spine Surgery Since 2000. A Personel Experiance Minimally Invasive Spine Surgery (MISS) Treatment for “Failed Back	Baalman Rainer
11:55 – 12:05	Syndrome” with Spinal Imbalance, Junctional Disc Herniation and SI Joint Dysfunction Syndromes	John Chiu
12:05 – 12:15	Percutaneous Endoscopic Servical Discectomy – Anterior Posterior Approaches	Fujito Ito
12:15 – 12:25	Is there a place for minimal invasive and endoscopic surgery on the lumbar spine ? Are there any advantages for the future	Stefan Hellinger
12:25 – 12:35	Technique and Indications of Transforaminal Decompression for Lumbar Herniated Disc and Lateral Recess Stenosis	Kai-uwe Lewandrowski
12:35 – 13:30	LUNCH	
	PANEL I – Basic Principles	
4th Session	Moderators: *Wilson Dratcu / Ibrahim Yegul* Anatomic consideration of intervertebral disc perspective in lumbar	
13:30 – 13:40	endoscopic posterolateral approach via Kambin’s triangle: Cadaveric study	Gun Keorochana

PROGRAM

13:40 – 13:50	Anatomical and Surgical Landmarks	Burkay Kacira
13:50 – 14:00	Applied Anatomy to Safely Perform Lumbar Percutaneous Discectomy	Wilson Dratcu
14:00 – 14:10	Neurovascular relations and clinical anatomy of the lumbar spine.	Halil Algan
14:10 – 14:20	The advantages of pre-operative and post-operative rehabilitative interventions in minimal invasive spine surgery	Cavit Meclisi
14:20 – 14:30	Lumbar DDD: Classification on Pain Generator	Pil Sun Choi
14:30 – 14:40	Do herniated disks cause pain?	İbrahim Yegül
14:40 – 14:50	The Map Of Back Pain	Ismail Gokyar
14:50 – 15:00	Minimal Invasive Surgical Techniques	Tolgay Satana
15:00 – 15:10	Discussion	
4th Session	Moderators: *Dirk Andreas Dr. Brücher / Murat Bezer*	
15:10 – 15:20	Clinical evaluation of early diagnosis and treatment of vertebral metastases with combined biopsy and percutaueous kyphoplasty (PKP)	Zhen Wanxin
15:20 – 15:30	Endoscopic approach for recurrence open disc surgery	Mohammad Ebrahim Taherian
15:30 – 15:40	Anterior Endoscopic Fusion of T1-T5: Review of approaches and the new “H tA E A” as a lateral approach by author	Dirk Andreas Dr. Brücher
15:40 – 15:50	Learning curve of full-endoscopic lumbar discectomy	Burak Kazanci
15:50 – 16:00	Tips, Compications and Pitfalls of Vertebraplasty	Ernani Abreu
16:00 – 16:20	Coffee Break	
5th Session	Moderators: *Oguz Karaeminogullari / Muhammed Alwrereh*	
16:20 – 16:40	Ultrasound Guided Sacroiliac Pain Interventions	Taylan Akkaya
16:40 – 16:50	Transforaminal Endoscopic Discectomy	Murat Bezer
16:50 – 17:00	Kyphoplasty for Treatment of Osteoporotic Vertebral Fractures	Oguz Karaeminogullari
17:00 – 17:10	Techniques and Indication of Endoscopic Posterior Cervical Foraminotomy When to Decompress Lumbar Canal When we have Fragment in the	Kai-uwe Lewandrowski
17:10 – 17:20	canal in Patients with Thoracolumbar Fractures done by MISS with intact Neurological Exam?	Mohammad D Alfawareh
17:20 – 17:30	Observation of therapeutic effect between percutaneous vertebroplasty and kyphoplasty for treatment of osteoporotic vertebral compression fracture by systematic review	Meng Chunyang
17:30 – 17:40	Nefopam reduces post-percutaneous endoscopic lumbar discectomy dysesthesia	Kyung-Hoon Kim
17:40 – 17:50	Endosopically Assisted Interbody Fusion Techniques	Kai-uwe Lewandrowski
17:50 – 18:00	Miss treatment option of failedback spine surgery sendrome	Tolgay Satana
18:00 – 18:10	Percutaneous Treatment of Lumbar Disc Herniations By Ozone Discolysis	Alper Muradov
18:00 – 18:10	Discussion	
18:30 – 22:00	WELLCOME COCKTAIL ON CHAMPIONS BAR	

PROGRAM

April 11, 2014 – Friday		
6th Session	Moderators: *Burak Ozgur / Shakhaydar S. Shatursunov*	
08:00 – 08:10	Kyphoplasty tips and tricks	Mohamed Mohi Eldin
08:10 – 08:20	DCI for single level CDD	Mohamed Mohi Eldin
08:20 – 08:40	MI Posterior Cervical Microforaminotomy in the Lower Cervical Spine & C-T Junction Assisted by O-Arm Based Navigation	Ildemaro Volcan
08:30 – 08:40	InFill Lateral System: a novel technique for optimizing graft filling and endplate contact in lumbar interbody fusion surgery	Burak Ozgur
08:40 – 08:50	Interspinous and Interlaminar Spacers: Experience and Considerations	Gabriel Calle
09:00 – 09:05	Discussion	
7th Session	Moderators: *Robert Saftic / Paulo Menchetti*	
09:05 – 09:15	Anterior Endoscopic Thoracic Decompression (AETD) and Anterior Endoscopic Lumbar Decompression (AELD) in TL-Spine	Dirk Andreas Dr. Brücher
09:15 – 09:25	Percutaneous cervical foraminal augmentation using D-Trax System. Two years results	Paulo Menchetti
09:25 – 09:40	Minimally Invasive options for DDD: Percutaneous facet augmentation device and Interlaminar fusion device (ILIF); indications	Paulo Menchetti
09:40 – 09:50	Minimal invasive decompression of foraminal stenosis using tubular retractors and posterolateral approach	Robert Saftic
09:50 – 10:00	Early evaluation of value based ambulatory endoscopic spine surgery	Sandeep Sherlekar
10:00 – 10:10	Slip Reduction of Moderate to High Grade Spondylolisthesis	Hyeun Sung Kim
10:10 – 10:20	Full Endoscopic Interlaminar Lumbar Disectomy: Going beyond the limits	Nizar N. Yatout
10:20 – 10:30	Endoscopic transforaminal discectomy for recurrent	Michael Schubert
10:30 – 10:50	Coffee Break	
	PANEL II : Endoscopic Spine Procedures (LOMBER)	
	Moderators: *Martin Knight / Osman Guven*	
10:50 – 11:00	Technique and limitation of Transforminal decompression of lumbar herniated disc	Michael Schubert
11:00 – 11:10	Pitfalls in lumbar endoscopic decompression: experience and hints	Robert Saftic
11:10 – 11:20	Percutaneous endoscopic disc surgery on the upper lumbar and thoracic spine	Baalmann Rainer
11:20 – 11:30	A Surgeons Perspective of Endoscopic Minimally Invasive Spine Surgery Including Pearls and Tricks	John Chiu
11:30 – 11:40	Percutaneous endoscopic unilateral laminotomy for lumbar lateral recess stenosis and/or high-migrated lumbar disc herniations	Fujito Ito
11:40 – 11:50	Percutaneous Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen – A Report of Clinical Experience.	Said Osman

PROGRAM

11:50 – 12:00	Surgical Anatomy and Pitfalls of Transforaminal PELD	Hyeun Sung Kim
12:00 – 12:20	Discussion	
12:30 – 13:30	LUNCH	
8th Session	Moderators: *Said Osman / Akira Dezawa*	
13:30 – 13:40	Percutaneous Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen – A Report of Cadaver Study.	Said Osman
13:40 – 13:50	PEDscope release of the piriformis muscle under local anesthesia for piriformis syndrome	Akira Dezawa
13:50 – 14:00	Mini-open TLIF/PLIF/ELIF	Hyeun Sung Kim
14:00 – 14:10	PSF and Implant Removal for Thoracolumbar Fracture	Hyeun Sung Kim
14:10 – 14:20	Microscopic Unilateral Approach for Bilateral Laminectomy	Hulagu Kaptan
Honnorary Lectures **WEBINAR**		
9th Session	Moderators: *Fujito Ito / Emre Acaroglu*	
14:20 – 14:40	A Surgeon's Perspective on Integration of Digital Technological Convergence and OR Control System for Endoscopic Minimally	John Chiu
14:40 – 15:00	The advanced paradigm of aware state Foraminoplasty	Martin Knight
15:00 – 15:20	Is there a place for minimal invasive and endoscopic surgery on the lumbar spine ? Are there any advantages for the future	Stefan Hellinger
15:20 – 15:40	Percutaneous Endoscopic Spine Procedures, Lumbar, Cervical and Thoracic Endoscopic Procedures	Jorge Ramírez
15:40 – 16:00	The future of Spinal Surgery as a medical subspecialty; Where are we now, what should we expect	Emre Acaroglu
16:00 – 16:20	Coffee Break	
16:20 – 17:40	SICCMI SESSION	
10th Session	Moderators: *Jorge Ramirez / Jose Antonio Soriano*	
16:20 – 16:30	Discectomía Lumbar Clásica Vs Discectomía Percutánea	Roberto Cantú
16:30 – 16:40	MISS Facet Fusion A More Economic Approach	Carl Bruce
16:40 – 16:50	Enfermedad Degenerativa Cervical: Tratamiento Mínimamente Invasivo. 15 Años De Experiencia Personal	Jorge Ramírez
16:50 – 17:00	Extrusion Disk Herniation L5-S1 With Caudal Migration. Endoscopy Interlaminar Approach Pitfails	Carlos Drummond
17:00 – 17:10	Aplicaciones de los accesos tubularesmicroduirurgicos en columna cervical	Jose Antonio Soriano
17:10 – 17:20	Miss Tlif Con Tornillos Unilaterales Vs Bilaterales: Resultados Clínicos	Manuel Rodríguez
17:20 – 17:30	Percutaneous Interspinous Device "Aperious": Wath Is The Best Indication	Wilson Dratcu
17:30 – 17:40	Percutaneous mangement on the lumbar disc herniation	Pedro F. Vázquez S.
17:40 – 17:50	Discussion	
19:00 – 23:30	BOSPHOROUS BOAT TRIP	

PROGRAM

April 12, 2014 – Saturday		
11th Session	Moderators: *Cheng Xigao / Jianru Wang*	
08:00 – 08:10	How to reduce the radiation exposure in micro-invasive spine surgery?	Jianru Wang
08:10 – 08:20	Application of Remote Control Injection System (RCIS): A Prospective Randomized Controlled Study	Jianru Wang
08:20 – 08:30	A new intradermal locator device for percutaneous placement of lumbar pedicle screws.	He Shisheng
08:30 – 08:40	Intraoperative Myelography in Extreme Lateral Interbody Fusion for Degenerative Lumbar Spinal Stenosis	Rong Limin
08:40 – 08:50	plus unilateral pedicle screw fixation via Quadrant minimally invasive system versus open transforaminal lumbar interbody fusion in the treatment of lumbar	Cheng Xigao
08:50 – 09:00	Discussion	
PANEL III – Backpain and Interventional Spine Treatments		
	Moderators: *Ibrahim Yegul / Elvan Erhan*	
09:00 – 09:10	Spinal Pain: An Overview	Ibrahim Yegul
09:10 – 09:20	Radiological Assessment of the Spine	Cem Calli
09:20 – 09:30	Conventional Treatment Modalities	Yesim Kirazli
09:30 – 09:40	Epidural Steroid Injections	Altan Sahin
09:40 – 09:50	Radiofrequency Techniques	Elvan Erhan
09:50 – 10:00	Neuromodulation	Kader Keskinbora
10:00 – 10:10	Epidoroscopy	Ibrahim Asik
10:10 – 10:20	classical vs minimal invasive approach: does the postoperative pain really matters?	Kemal Tolga Saracoglu
10:20 – 10:30	Discussion	
10:30 – 10:50	Coffee Break	
12th Session	Moderators: *Bulent Ozkurt / Kai-uwe Lewandrowski*	
10:50 – 11:00	Percutaneous Intradiscal Laser Teraphy	Alper Gokce
11:00 – 11:10	Clinical anatomy of the pedicles	Bülent Özkurt
11:10 – 11:20	Management of Low Back Pain by Applying the Combination of Facet Radiofrequency and Nucleoplasty Injection	Ziad ElChamie
11:20 – 11:30	The Role of Continuous and Pulse Radiofrequency in Chronic Back Pain	Paulo de Carvalho

PROGRAM

11:30 – 11:40	Use of Interspinous Spacer Coflex in Lumbar Degenerative	Andre Lafratta
11:40 – 11:50	Vertebroplasty Vs Kifoplasty : indications and results	Gustavo Barreiro
11:50 – 12:00	Percutaneous Costoplasty for Painful Rib Metastatic Fractures	Kyung-Hoon Kim
12:00 – 12:15	Discussion	
	Satelite Symposia	
12:15 – 12:30	A Support Innovative Pre-and Postoperative in Rachis Orthopedic Surgery	Osman Aydogdu
12:30 – 13:30	LUNCH	
13th Session	Moderators: *Akira Dezawa / Murat Erguven*	
13:30 – 13:40	Complications of Lumbar Endoscopic Microdiscectomy Surgery	Kai-uwe Lewandrowski
13:40 – 13:50	The Challenges of Lumbosacral Junction to the Spine Surgeon – Case for a New Surgical Option	Said Osman
13:50 – 14:00	Structural Pservation Interlaminar PELD	Hyeun Sung Kim
14:00 – 14:10	Pros & cons of percutaneous endoscopic interlaminar approach versus microendoscopic technique	Akira Dezawa
14:10 – 14:20	Percutaneous Endoscopic Foraminal Versus Interlaminar Approach	Ernani Abreu
14:20 – 15:10	Round Table Debate Session	
	Modarators: *Tolgay Satana / Stefan Hellinger*	
Percutaneous Endoscopic Interlaminar Versus Transforaminal Approach John Chiu, Martin Knight, Stefan Hellinger, Jorge Ramírez, Michael Schubert, Hulagu Kaptan Burak Ozgur, Eranani de Abreu, Fujito Ito, Pil Sun Choi, Robert Saftic, Akira Dezawa, Alvaro Dowling, Said Osman, Heyung Sun Kim, Kai-uwe Lewandrowski		
14th Session	Modarators: *Ernani Abreu / Said Osman*	
15:10 – 15:20	Dynamic Interlaminar Device in the lumbar foraminal stenosis. Indications and Results	Celso Fretes Ramírez
15:20 – 15:30	The clinic studying of annulus fibrosis suturing and repairing on Microendoscopic Discectomy	Yin Heping
15:30 – 15:40	Techniques and Indicatinos for Endoscopic Lumbar Microdiscectomy and Lateral Recess Decompression.	Kai-uwe Lewandrowski
15:40 – 15:50	Percutaneus Discoplasty (Discogel) Treatment in Lumbar Discs Herniations	Stylianos Kapetanakis
15:50 – 16:00	Questions	
16:00 – 16:20	Coffee Break	

PROGRAM

	SICCMI SESSION	
15th Session	Modarators: *Marcos Baarbor / Alward Downling*	
16:20 – 16:30	Prótesis Anular En Herniación Del Núcleo Pulposo	Marcos Baabor
16:30 – 16:40	Contribución De Los Accesos Laterales Toraco-Lumbares A La Cirugia Mínimamente Invasiva De Columna	Ildemaro Volcan
16:40 – 16:50	Complicaciones De Tlif Percutáneo Con Cajas De Peek	Carlos Montes
16:50 – 17:00	Uso De La Endoscopía En Síndrome De Espalda Fallida	Alvaro Dowling
17:00 – 17:10	Abordaje Lateral Para Las Reconstrucciones Anteriores De Deformidades Complejas De Columna Toracolumbar	Marcelo Perez
17:10 – 17:20	Tratamiento Mínimamente Invasivo De Tumores Vertebrales Intracanal	Roberto Díaz
17:20 – 17:30	El Concepto De Descompresión Indirecta Del Forámen Lumbar Estenótico En Cirugia Minimamente Invasiva De Columna: Perspectiva Neurofisiológica	Carlos Gutiérrez
17:30 – 17:40	Pathoanatomy Of Spine Stenosis	Marcelo Perocco
17:40 – 17:50	Oblique Lumbar Lateral Interbody Fusion Technique	Jeff Katzell
17:50 – 18:00	Discussion	
18:30 – 23:30	GALA DINNER ON RENAISSANCE BALL ROOM	

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Tolgay Satana

Dr. Tolgay Satana

Orthopedic and Trauma Surgeon

Born Ankara 1968

Graduated University of Ankara Faculty of Medicine 1991

Orthopedic Surgery Trainning completed in University of Gazi Ankara 1997

Military Service and war surgery experience 1 year 1998

Spinal Fellowship in University of Michigan 1999-2000

Specialised on Deformity spine surgery since 2000 and interested beside Artroscopic surgery

Private practicing since 2003 well known spine surgeon and arthroscopist in Turkey

Executive Member of IMLAS since 2000

Secretary of IMLAS Istanbul 2005

Guest Editor in Turkish Journal of Joint Surgery

Active member of Bone and Joint Turkey Osteoporosis and Osteoarthritis congress responsible of Spine section for 9 years.

Member of Turkish Spine Society

Member of Turkish Ortopedic society

Board member of ISMISS and national representative of Turkey since 2005

Chairman of Turkish Chapter of ISLASS

WALA board member

Founder and President of Turkish MISS

Founder and Coordinator of ISMISS Turkey

Tolgay Satana is doing private Practice in Istanbul and consultant spine surgeon of Universal Hospital group and Jinemed and some universities in Istanbul.

He has numeorous lectures' articles, editor of books about MISS.

MISS; is an option for the treatment of
Failed Back Surgery Syndrome

Tolgay Satana, MD* Murat Erguven, MD**, Ali Fincan, MD**, Kamil Barlas MD**

Turkey

Failed Back Spine Surgery (FBSS) is one of the difficult defined pain syndrome.

Usually orgine of pain is unknown post spinal surgery. Pain source is unclear, and never *terminal diagnosis*. Clinical apperance is mostly complicated with cauda equina, reherniation, battered root, epidural fibrosis, arachnoiditis , intervertebral instability or spinal stenosis either at the previous surgical site or at adjacent levels

The Definition of FBSS is simply that is to create a pain generator on spine by surgical way. FBSS and Chronic low back pain have completely different pain patern. FBSS; related with surgery, unsufficient surgical treatment, overtreatment, malpractice.It refers to a condition in which a patient has undergone back surgery with a poor outcome

Etiology: Poor selection for surgery and the patient have had a psychological profile or pathophysiology, Improper selection and misdiagnosis, inadequate preoperative evaluation and diagnostic work-up,improper or inadequate surgery.

Objectives: Evaluate responsible reason of FBSS mechanic and neurologic compromise and to find pain generators and prospect of eliminating the pain and to improve function

Patients and Method: 18 patients were included prospective study, 14 females 4 males, Main age 55, Follow up 6 m (range 3-24 months)10 patients are treated single miss way, 8 patients combined with open surgery

Methods: In ten cases, therewas a single miss procedure, such as percutaneous foraminoplasty and/or epidusocopy performed (all of them postdiscectomy synd) in 8 additional cases, two surgical procedure have been performed, 2 patient remove hardware and limited decompression without fusion and if it is necessary combined with epiduroscopy, 2 patient have fusion surgery because of recurrent spondilolysthesis after one level discectomy, 4 patient had extremely spinal stenosis, and hardware occupition c-

spinale chanel, excesive decompression and posterior short fusion. Key Surgery consist of different stages; remove If there is hardvare asap, debridement, minimal decompression

Results: Previous studies have used a measure of successful outcome≥ 50% of original pain relief as a successful outcome. The first VAS and Questioneire score had been taken respectively high before surgery. These two scores (pre and post) were then used to provide absolute difference more than 50 percent.

Conclusion:

MISS is an option which is significantly reduced pain in almost all patients. Pain relief was significantly and highly correlated with reduced analgesic intake and patient satisfaction. MISS should be considered as a potential

treatment option for FBSS. MISS is not palliative treatment in which terminal stage of all other options. Our results suggest that although all ages have the potential to benefit from MISS and interventonal teqniques.

0101

Pil Sun Choi

Title of abstract :

- Lumbar DDD: Classification on Pain Generator

0102

Wilson Dratcu

Title of abstract :

- Minimally Invasive Spine Surgery in Brasil
- Applied Anatomy to Safely Perform Lumbar Percutaneous Discectomy Percutaneous Interspinous Device “Aperious” Wath Is The Best Indication

0103

Paulo De Cavalho

Title of abstract :

- The Crisis in health system: Critical analysis & projection of MISS
- Lumbar Percutaneous Discectomy in Brasil
- The Role of Continuous and Pulse Radiofrequency in Chronic Back Pain

0104

Sahap Atik

Title of abstract :

- Does Laser Energy Cause Damage In Cartilage and Bone

0105

David Del curto

Title of abstract :

- MISS Option in Lumbar Spondylolysis

0106

Ildemaro Volcan

Title of abstract :

- Contribution of thoraco-lumbar lateral accesses to the Minimally Invasive Spine Surgery
- Transoperative neuromonitoring during MISS
- MI Posterior Cervical Microforaminotomy in the Lower Cervical Spine & C-T Junction Assisted by O-Arm Based Navigation
- Contribución De Los Accesos Laterales Toraco-Lumbares A La Cirugia Mínimamente Invasiva De Columna

0107

Paulo Miguel da Silva Pereira

Paulo Miguel da Silva Pereira

CURRICULUM VITAE

Paulo Miguel da Silva Pereira, born March 6th, 1968

Neurosurgeon
Head of the Spine Unit
Department of Neurosurgery
Centro Hospitalar S. Joao
Porto - Portugal

Assistant of Neurology and Neurosurgery
Faculty of Medicine
University of Porto - Portugal
PhD student

- Vice-President of the Portuguese Neurosurgical Society (2013-2014)
- Former Vice-President of the Portuguese Spine Society (2007-2012)
- Vice-President of the Executive Committee of the World Federation of Minimally Invasive Spine Surgery (Founder Officer)
- Member of the Training Committee of the Portuguese Society of Neurosurgery (since 2011)
- National Representative (Portugal) of the International Society for Minimal Intervention in Spinal Surgery (since 2011)

Scientific Societies:

- Portuguese Society of Neurosurgery since 2001 (training member since 1995)
- Portuguese Spine Society (Founder-member in 2004)
- AOSpine since 2004
- International Spine Intervention Society 2004-2009
- International Society for Minimal Intervention in Spinal Surgery (since 2009)
- World Spinal Column Society (since 2010)

Medical Education:

- Admission to Porto Faculty of Medicine in 1986, with the classification of 19/20
- Conclusion of the Medical School in 1992, with the classification of 16/20
- General Internship in "Hospital S. João", Porto, in 1993-1994
- National Contest for Admittance to Medical Speciality in 1994, with the classification of 91/100
- Residency in Neurosurgery in "Hospital S. João" 1995-2001. Conclusion in July 2001 with the classification of 19.4/20
- Training in Centre Hospitalier Régional Roger Salengro (Service de Neurocirurgie), Lille, France, with Dr. Richard Assaker, for spine pathology in June 1998
- AOSpine Fellowship in Kantonsspital, Universitätskliniken Basel, Switzerland (Orthopaedic Department – Spine Unit) in 2003
- Visitorships in 10 Hospitals and Medical Centres in Portugal, Europe and USA
- Participation in 82 Courses and Workshops
- Participation in 110 Conferences and Scientific Meetings in Portugal, Europe, USA, Canada, Brazil and Japan

Summary of the Scientific Activity:

- Author of 27 presentations (free papers) in national and international scientific meetings
- Author of 116 lectures in national and international scientific meetings
- Co-author of 77 presentations (free papers) in national and international scientific meetings
- Participation in 79 sessions (round-tables) in national and international scientific meetings
- Author / co-author of 17 papers published in national and international scientific journals + 20 publications of abstracts of presentations
- Faculty Member in 70 national and international scientific meetings
- Participation in 3 international multicentre investigation projects + 1 national project
- Supervisor of 1 Master's thesis (Medicine)

Special Interests:

- Minimally invasive spine surgery
- Surgery of the craniovertebral junction
- Spinal cord and intradural spine surgery
- Percutaneous spinal techniques

Other Activities:

- Course Committees of the 2nd to 6th years at Faculty of Medicine of Porto. 1987-92
- Chairman of the Supervisory Board of the Association of Students of Faculty of Medicine of Porto. 1989-90
- Member of the Tuna of Medicine (Faculty of Medicine of Porto). 1991-92
- Committee on Candidates for the General Internship, Faculty of Medicine of Porto. 1991-92
- Committee of General Interns Hospital S. João. 1993-94
- Northern Regional Board, National Association of Young Doctors. 1997-2000
- Direction of the National Council of Medical Residents. 1997-2000
- Founder Member of the Portuguese Neuro-Oncology Association. 1999
- Representative of the residents of Neurosurgery at Department of Medical Internship at the Hospital of S. João. 2000-01
- Member of the Trauma Committee of Hospital de S. João. 2000-02
- Lecturing about "Spine and Spinal Cord Injuries" for participants of the Masters Course on Emergency Medicine, Porto (Portugal). 2001
- Coordination of seminars about spine pathology for the medical students of Porto Faculty of Medicine since 2002
- Lecturing on Postgraduate Courses on Legal Medicine, Porto (Portugal), since 2003
- Chairman of the Neurosurgery modulus "Neurosurgery in Sports" on the Postgraduate Courses on Sports Medicine, Porto (Portugal), since 2004
- Faculty Member of Medtronic Minimal Access Spinal Technology Courses since 2004
- Tutor of Residency Programs of Neurosurgery Residents in Hospital S. Joao, Porto (Portugal), since 2004
- "Education and Training Agreement" with Medtronic International Trading Sàrl for craniovertebral junction surgery and minimally invasive spine surgery, since 2005
- Lecturing on the Advanced Course for rehabilitation nurses, Porto (Portugal). 2005

- Invited lecturer on the International Postgraduate Program "From Acute to Chronic Pain: basic and clinical approaches" of the School of Health Sciences of Universidade Minho. 2008
- Coordinator of "Visiting Surgery Programs" in the field of minimally invasive spine surgery since 2008
- "Consultancy & Education Agreement" with DePuy International for spinal surgery (2009-2012)
- National Coordinator of the Campaign "Look For Your Back" promoted by the Portuguese Spine Society since 2009
- Lecturing on Postgraduate Course on Geriatrics, Porto (Portugal). 2010
- Faculty Member of the Lisbon's Hands-On Spine Course (Anatomy Department of the Medical Sciences Faculty of Lisbon) since 2011
- Invited lecturer on the Nerve Regeneration Course (Graduate Program in Areas of Basic and Applied Biology –GABBA- of the University of Porto) since 2011
- Invited lecturer on the Doctoral Program in Neurosciences of the University of Porto. 2012
- Coordinator of the Course Module: Neurosurgery - Spinal Pathology on the Doctoral Program in Clinical Neuroscience, Neuropsychiatry and Mental Health 2011/2012, University of Porto
- Faculty member of the Postgraduate course "Minimally Invasive Spine Surgery" (School of Health Sciences, University of Minho, Braga, Portugal), since 2012
- Collaboration on the medical education of residents of Neurosurgery and other medical specialities (spine and general neurosurgery short-term fellowships)

Title of abstract :

- Minimally Invasive Interbody Fusion Techniques
- Endoscopic radiofrequency adhesiolysis for failed back surgery

PUBLICATIONS

1. Algumas considerações sobre Ética do Ensaio Clínico

   Mansilha A, Pereira P

   Arquivos de Medicina 3(4): 450-455, 1990

2. Sequelas dos T.C.E

   Pereira P, Gonçalves JM

   in "Traumatismos Crânio-encefálicos", Rui Vaz, 3ª edição, Porto, 1996

3. Conselhos aos familiares dos doentes com sequelas de T.C.E.

   Pereira P, Pereira J

   in "Traumatismos Crânio-encefálicos", Rui Vaz, 3ª edição, Porto, 1996

4. Hemorragias intracerebrais espontâneas não hipertensivas

   Vaz R, Pereira P, Duarte F, Aran E

   Arquivos de Medicina 12(6): 364-370, 1998

5. Idiopathic Spinal Cord Herniation: Case Report and Literature Review

   Pereira P, Duarte F, Lamas R, Vaz R

   Acta Neurochir (Wien) 143: 401-406, 2001

6. Intracranial Aneurysm and Vasculopathy after Surgery and Radiation Therapy for Craniopharyngioma: Case Report

Pereira P, Cerejo A, Cruz J, Vaz R

Neurosurgery 50(4): 885-7; discussion 887-8, 2002

7. Fusão occipito-cervical – A propósito de 15 Casos Clínicos

Vaz R, Pinto R, Duarte F, Pereira P

Arquivos de Medicina 17(4): 172-175, 2003

8. Epithelioid hemangioendothelioma and multiple thoraco-lumbar lateral meningoceles: two rare pathological entities in a patient with NF-1

Reis C, Carneiro E, Fonseca J, Pereira P, Vaz R, Pinto R, Capelinha AF, Lopes JM, Salgado A

Neuroradiology 47(2): 165-9, 2005

9. Foraminal L5-S1 disc herniation and conus medullaris syndrome: a vascular etiology?

Reis C, Rocha JA, Chamadoira C, Pereira P, Fonseca J

Acta Neurochir (Wien) 149(5): 533-5, 2007

10. A surgical training model manufacture using rapid prototyping technology

Queijo L, Rocha J, Barreira L, Barbosa T, Pereira P, San Juan M

In: Paulo Jorge Bártolo et al. (eds.) “Innovative Developments in Design and Manufacturing - Advanced Research in Virtual and Rapid Prototyping”. pp. 175-179. CRC Press, 2009 (ISBN: 978-0-415-87307-9)

11. A prototipagem rápida na modelação de patogenias

Queijo L, Rocha J, Pereira P, Barreira L, San Juan M, Barbosa TM

In: Vaz MA, Piloto PA, Reis Campos JC (eds.). 3º Congresso Nacional de Biomecânica. pp. 571-576. Instituto Politécnico de Bragança. Bragança. 2009

12. Espondilodiscite tuberculosa lombar: abordagem cirúrgica minimamente invasiva

Carvalho B, Pereira P, Santos Silva P, Silva J, Pinto M, Vaz R

Acta Reumatol Port. 35: 57-60, 2010

13. Tratamento cirúrgico de recidivas de hérnias discais lombares: que resultados?

Silva PA, Pereira P, Pinto P, Vaz R

Coluna/Columna. 10(1):14-9, 2011

14. Hematoma subdural dorsal espontâneo

Alpoim B, Rodrigues M, Silva P, Carvalho B, Pereira P, Vaz R

Acta Med Port. 24(S3):725-8, 2011

15. Correcção de escoliose lombar degenerativa por técnica minimamente invasiva

Silva PS, Silva J, Carvalho B, Pereira P, Vaz R

Coluna/Columna. 11(4): 326-8, 2012

16. Fixação posterior C1-2 com parafusos translaminares para *os odontoideum* com instabilidade atlanto-axial

Ferraz D, Carvalho B, Silva P, Rocha R, Miragaia L, Gonçalves M, Pereira P, Freitas R

Rev Port Ortop Traum. 20(4): 445-51, 2012

17. Learning curve and complications of minimally invasive transforaminal lumbar interbody fusion.

Silva PS, Pereira P, Monteiro P, Silva PA, Vaz R.

Neurosurg Focus. 2013 Aug;35(2):E7. doi: 10.3171/2013.5.FOCUS13157.

18. Spinal intramedullary ependymal cyst - current concepts for diagnosis and surgical management.

Figueiredo R, Carvalho B, Silva P, Castro L, Reis C, Pereira P, Vaz R.

Br J Neurosurg. 2013 Sep 13. [Epub ahead of print] DOI: 10.3109/02688697.2013.835368

19. Osteomyelitis of the Atlantooccipital Joint in an Intravenous Drug User - A Case Report and Review of the Literature

Barbosa T, Pereira P, Silva PS, Monteiro P, Vaz R

JBJS Case Connect 2013;3:e101 http://dx.doi.org/10.2106/JBJS.CC.M.00075

PUBLICATIONS OF ABSTRACTS OF PRESENTATIONS

1. Does a less invasive technique make a difference in the peroperative period of lumbar arthrodesis?

Pereira P, Picallos J, Sousa P, Polónia P, Chamadoira C, Vaz R.

Acta Neurochirurgica. 2007 – 13th Congress of EANS:LXXXVIII

2. An unusual cause of a distal neurological deficit of an inferior limb

Polonia P, Pereira P, Picallos J, Pereira JM, Bernardes JM, Vaz R.

Acta Neurochirurgica. 2007 – 13th Congress of EANS:CLXXXVIII

3. Fusão inter-somática lombar transforaminal (TLIF) por via minimamente invasiva. Experiência do HSJ – 20 casos

Chamadoira C, Pereira P, Picallos J, Silva P, Vaz R.

Sinapse. 2009; 9(Supl.1):47-48

4. Recidivas de hérnias discais lombares: que resultados?

   Silva P, Chamadoira C, Pereira P, Vaz R.

   Sinapse. 2009; 9(Supl.1):48-49

5. Uma comorbilidade severa em cirurgia do ráquis: a doença de Parkinson

   Vaz R, Chamadoira C, Pereira P, Linhares P, Rosas MJ.

   Sinapse. 2009; 9(Supl.1):49

6. Corporectomias cervicais a 2 níveis somáticos: avaliação de resultados a longo prazo

   Silva P, Picallos J, Pereira P, Vaz R

   Sinapse. 2009; 9(Supl.1):49-50

7. Navegação raquidiana com fusão fluoro-TC: Uma mais valia?

   Pereira P, Picallos J, Chamadoira C, Silva P, Vaz R.

   Sinapse. 2009; 9(Supl.1):50-51

8. Paragangliomas do filum terminale: 2 casos clínicos

   Silva P, Chamadoira C, Polónia P, Pereira P, Castro L, Vaz R.

   Sinapse. 2009; 9(Supl.1):86-87

9. Retenção urinária por compressão bulbo-medular: caso clínico

   Silva J, Milheiro M, Silva P, Pereira P, Cerejo A, Vaz R.

   Sinapse. 2009; 9(Supl.1):89

10. Two-level corpectomy: long term results

    Silva PA, Chamadoira C, Pereira P, Vaz R.

European Spine Journal. 2009;18(Suppl:4):S464

11. Spine navigation using CT-fluoro merge: a fad or an added value?

    Pereira P, Picallos J, Chamadoira C, Silva PA, Vaz R.

    European Spine Journal. 2009;18(Suppl:4):S490

12. Factores de prognóstico no tratamento cirúrgico de recidiva de hérnia discal lombar

    Silva PA, Silva J, Pereira P, Vaz R.

    Coluna/Columna. 2010;9(4):466-476

13. Correcção de escoliose lombar degenerativa por técnica minimamente invasiva

    Silva PS, Silva J, Slezins J, Pereira P, Vaz R.

    Coluna/Columna. 2010;9(4):466-476

14. Espondilectomia total por via posterior em doente com cordoma de L1

    Silva J, Carvalho B, Silva PS, Pereira P, Vaz R.

    Coluna/Columna. 2010;9(4):466-476

15. Planeamento cirúrgico usando técnicas de prototipagem rápida: um estudo prévio

    Queijo L, Rocha J, Pereira P.

    Coluna/Columna. 2010;9(4):466-476

16. Tratamento cirúrgico de espondilodiscite tuberculosa lombar por técnica minimamente invasiva

Carvalho B, Pinto M, Lopes R, Pereira P, Vaz R.

Coluna/Columna. 2010;9(4):466-476

17. Cirurgia de meningiomas do foramen magno

    Pedro Monteiro, Paulo Pereira, António Cerejo, Rui Vaz

    Sinapse. 2012;12(1):111

18. Intervenções Percutâneas Diagnósticas e Terapêuticas em Patologia Raquidiana Degenerativa: uma Revisão de 142 Procedimentos

    Pedro Alberto Silva, Pedro Monteiro, Patrícia Polónia, Paulo Pereira, Rui Vaz

    Sinapse. 2012;12(1):126

19. Resultado funcional após TLIF minimamente invasiva em 1-2 níveis

    Pedro Santos Silva, Pedro Alberto Silva, Bruno Carvalho, Paulo Pereira, Rui Vaz

    Sinapse. 2012;12(1):126

20. Paraparésia por hemorragia intra-quisto sinovial lombar – caso clínico

    Joana Oliveira, Pedro Santos Silva, António Vilarinho, Paulo Pereira, Rui Vaz

    Sinapse. 2012;12(1):164

21. Tratamento cirúrgico de malformação arteriovenosa perimedular – vídeo cirúrgico

    Pedro Santos Silva, Paulo Pereira, António Vilarinho, Pedro Monteiro, Rui Vaz

    Sinapse. 2013;13(2):131

22. "TLIF minimamente invasiva – curva de aprendizagem e complicações"

    Pedro Santos Silva, Pedro Monteiro, Pedro Alberto Silva, Paulo Pereira, Rui Vaz

Sinapse. 2013;13(2):136

23. “Oxigenoterapia hiperbárica em Neurocirurgia: a propósito de 2 casos clínicos” (Poster)

    Pedro Monteiro, Paulo Pereira, Joana Oliveira, Rui Vaz

    Sinapse. 2013;13(2):150

LECTURES AND PRESENTATIONS

1. - 41. before 2010

42. “Errors and Pitfalls”

    Reunião de cirurgia minimamente invasiva da coluna osteoporótica

    Lisbon, Portugal, January 16, 2010

43. “Navigation-assisted Minimally Invasive TLIF”

    International 28th Course for Percutaneous Endoscopic Spine Surgery and Complementary Minimal Invasive Techniques

    Zurich, Switzerland, January 28-29, 2010

44. “Decompression Techniques: an Overview”

    Challenges in Minimally Invasive Techniques of the Degenerative Spine (Medtronic)

    Leiden, Netherlands, February 11-12, 2010

45. “Surgical Tips: Using Tubular Access for Decompression”

    Challenges in Minimally Invasive Techniques of the Degenerative Spine (Medtronic)

    Leiden, Netherlands, February 11-12, 2010

46. “Case Study: Lateral soft/hard stenosis”

    Challenges in Minimally Invasive Techniques of the Degenerative Spine (Medtronic)

    Leiden, Netherlands, February 11-12, 2010

47. “Tubular Retractors for Decompression & Discectomy”

    The Degenerative Spine – Minimally Invasive Surgery Instructional Course (DePuy Spine)

    Barcelona, Spain, March 4-5, 2010

48. “Vertebral Body Augmentation, Kyphoplasty & Vertebroplasty and usage in conjunction with Instrumentation”

    The Degenerative Spine – Minimally Invasive Surgery Instructional Course (DePuy Spine)

    Barcelona, Spain, March 4-5, 2010

49. “Minimally invasive TLIF and PLIF”

    Current Techniques in Advanced Spinal Care – Brazil (Medtronic)

    Miami, FL, USA, April 25-26, 2010

50. “Percutaneous Pedicle Screw”

    Current Techniques in Advanced Spinal Care – Brazil (Medtronic)

    Miami, FL, USA, April 25-26, 2010

51. “MAST^{TM} Tubes: Rationale of Tubular Decompression”

    Minimally Invasive Technologies in the Spine; using a complete range of technologies (Medtronic)

    Bordeaux, France, June 11-12, 2010

52. "TLIF: When, Benefits and How to Combine with MAST™ Techniques"

    Minimally Invasive Technologies in the Spine; using a complete range of technologies (Medtronic)

    Bordeaux, France, June 11-12, 2010

53. "What Can We Learn from Clinical Evidence Using MAST™ Techniques?"

    Minimally Invasive Technologies in the Spine; using a complete range of technologies (Medtronic)

    Bordeaux, France, June 11-12, 2010

54. "Técnicas de Fusão Intersomática (TLIF e PLIF)"

    Curso Prático de Cirurgia da Coluna Lombar para Internos

    Barcelona, Spain, July 9, 2010

55. "Minimal Access Decompression Techniques"

    Current Techniques in Minimal Access – Latin America (Medtronic)

    Sunnyvale, CA, USA, September 7-9, 2010

56. "Percutaneous Pedicle Screw Fixation Techniques"

    Current Techniques in Minimal Access – Latin America (Medtronic)

    Sunnyvale, CA, USA, September 7-9, 2010

57. "Fusion Surgery: An Overview"

    Total MAST™ Solutions Course (Medtronic)

    Frankfurt, Germany, September 30 – October 1, 2010

58. “Surgical Considerations: Using Tubular Access for Decompression”

Total MAST™ Solutions Course (Medtronic)

Frankfurt, Germany, September 30 – October 1, 2010

59. “MIS Fusion”

Advanced Minimally Invasive Surgical Techniques in the Degenerative Lumbar and Thoracic Spine (DePuy Spine)

Barcelona, Spain, November 18-19, 2010

60. “Minimal Access Decompression Techniques”

Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

Memphis, TN, USA, January 5-7, 2011

61. “Percutaneous Pedicle Screw Fixation Techniques”

Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

Memphis, TN, USA, January 5-7, 2011

62. “Osteoporotic Compression Fractures: Evaluation and Management”

Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

Memphis, TN, USA, January 5-7, 2011

63. “Healthcare and Spine Surgery in Portugal”

Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

Memphis, TN, USA, January 5-7, 2011

64. “Anatomia cirúrgica da abordagem anterior à coluna sub-axial”

Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo I - Cirurgia da Patologia da Coluna Cervical

Lisbon, Portugal, January 14-15, 2011

65. "Surgical Considerations: Using Tubular Access for Decompression"

Total MAST™ Solutions Course (Medtronic)

Leiden, Netherlands, February 24-25, 2011

66. "MAST™ Techniques for Fusion – The Benefits of a MAST™ Approach"

Total MAST™ Solutions Course (Medtronic)

Leiden, Netherlands, February 24-25, 2011

67. "Minimal Access Decompression Techniques"

Current Techniques in Minimal Access Spine surgery - Mexico (Medtronic)

Miami, FL, USA, March 21-22, 2011

68. "Percutaneous Pedicle Screw Fixation Techniques"

Current Techniques in Minimal Access Spine surgery - Mexico (Medtronic)

Miami, FL, USA, March 21-22, 2011

69. "Minimal Access Decompression Techniques"

Current Techniques in Minimal Access Spine surgery - Brazil (Medtronic)

Miami, FL, USA, March 21-22, 2011

70. "Percutaneous Pedicle Screw Fixation Techniques"

Current Techniques in Minimal Access Spine surgery - Brazil (Medtronic)

Miami, FL, USA, March 21-22, 2011

71. “Canal lombar estenótico”

Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo 2 - Patologia da Coluna Tóraco-Lombar

Lisbon, Portugal, April 1-2, 2011

72. “Anatomia cirúrgica das abordagens posteriores à coluna lombar”

Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo 2 - Patologia da Coluna Tóraco-Lombar

Lisbon, Portugal, April 1-2, 2011

73. “Descompressão por técnicas minimamente invasivas – Menos é mais? Evidências”

Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo 3 – Cirurgia por Técnicas Minimamente Invasivas

Lisbon, Portugal, June 3-4, 2011

74. “Fixação dinâmica da coluna lombar”

Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo 3 – Cirurgia por Técnicas Minimamente Invasivas

Lisbon, Portugal, June 3-4, 2011

75. “Central Nerve Injury – a clinical perspective”

Nerve Regeneration Course – GABBA

Porto, Portugal, June 13, 2011

76. “Minimal Access Decompression of the Spine”

Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

Memphis, TN, USA, August 1-3, 2011

77. "Vertebroplasty and Vertebral Body Augmentation – Technique and Evidence Basis"

Minimally Invasive Surgical Techniques in the Degenerative Lumbar – A Cadaveric Workshop (DePuy Spine)

Barcelona, Spain, December 1-2, 2011

78. "MIS Decompression / Discectomy with Tubular Retractors – Technique and Evidence Basis in Degenerative Spine"

Minimally Invasive Surgical Techniques in the Degenerative Lumbar – A Cadaveric Workshop (DePuy Spine)

Barcelona, Spain, December 1-2, 2011

79. "MISS for tumour and infection"

International 30th Jubilee Course for Percutaneous Endoscopic Spinal Surgery and Complementary Minimal Invasive Techniques

Zurich, Switzerland, January 26-27, 2012

80. "Anatomia cirúrgica da abordagem anterior à coluna sub-axial"

Lisbon's Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía) - Módulo I – Cervical Spine Surgery

Lisbon, Portugal, February 3-4, 2012

81. "Cervical disc disease: Fusion versus TDR – what the literature says"

AOSpine Advanced Symposium - Degenerative Spine

Tomar, Portugal, April 13-14, 2012

82. “Cervical stenosis: Alternative treatments by posterior approach”

AOSpine Advanced Symposium - Degenerative Spine

Tomar, Portugal, April 13-14, 2012

83. “Cirurgia minimamente invasiva da coluna: uma moda ou uma mais-valia?”

Seminário Pré Congresso FLANC/SPNC (Federación Latinoamericana de Sociedades de Neurocirugía / Sociedade Portuguesa de Neurocirurgia)

Neuro 2012. Congresso Nacional das Sociedades Portuguesas de Neurologia e Neurocirurgia

Porto, Portugal, May 10-12, 2012

84. “Lumbar dynamic stabilization concept”

Lisbon’s Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía) - Módulo III – Minimal Invasive Spine Surgery

Lisbon, Portugal, June 1-2, 2012

85. “Less is more? What evidence teaches us?”

Lisbon’s Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía) - Módulo III – Minimal Invasive Spine Surgery

Lisbon, Portugal, June 1-2, 2012

86. “MAST™ Interbody Fusion Options”

Total MAST™ Degen Solution Surgeon Course (Medtronic)

Vienna, Austria, July 12-13, 2012

87. “Decompression and Spinal Instability: How Should We Re-stabilize?”

Total MAST™ Degen Solution Surgeon Course (Medtronic)

Vienna, Austria, July 12-13, 2012

88. “The Benefits of a MAST® approach – A Literature Review”

Fundamentals of Minimally Invasive Spine Surgery and Balloon Kyphoplasty Course (Medtronic)

Salzburg, Austria, August 13-14, 2012

89. “MAST® TLIF - Rationale, Patient Selection, Potential Benefits, and Surgical Technique”

Fundamentals of Minimally Invasive Spine Surgery and Balloon Kyphoplasty Course (Medtronic)

Salzburg, Austria, August 13-14, 2012

90. “MISS for tumor and infection”

III World Congress of Minimally Invasive Spine Surgery & Techniques

Praia do Forte, Brazil, August 16-18, 2012

91. “Posterior approaches C3-C7: techniques and indications”

SENEC (Sociedad Española de Neurocirugía) II Hands-on Course “Anatomy and Surgical Strategies in Spinal Surgery”

Alicante, Spain, September 27-29, 2012

92. “Lumbar Interbody Fusion – Posterior Approach”

Lumbar Interbody Fusion Course (Medtronic)

Bordeaux, France, October 11-12, 2012

93. “Lumbar Fixation Devices and Options”

Lumbar Interbody Fusion Course (Medtronic)

Bordeaux, France, October 11-12, 2012

94. “Revisitando a cirurgia cervical posterior”

XVI Curso da Sociedade Portuguesa de Neurocirurgia

Lousã, Portugal, October 18-20, 2012

95. “MISS Complications - Tricks of the Trade: How to Stay Out of Troubles!”

Minimally Invasive Spine Surgery Hands-On Course (Escola de Ciências da Saúde da Universidade do Minho)

Braga, Portugal, November 16-17, 2012

96. “Abordagem anterior da charneira crânio-vertebral”

2º Simpósio de Coluna Vertebral do Hospital da Luz “Patologia da charneira crânio-vertebral”

Lisbon, Portugal, November 30, 2012

97. “Sagittal spinopelvic parameters after minimally invasive lumbar fusion”

International 31st Course for Percutaneous Endoscopic Spinal Surgery and Complementary Minimal Invasive Techniques

Zurich, Switzerland, January 24-25, 2013

98. “Anatomy of the anterior cervical approaches”

Lisbon’s Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía)

Lisbon, Portugal, February 20-23, 2013

99. “Posterior cervical decompression techniques: options and indications”

Lisbon’s Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía)

Lisbon, Portugal, February 20-23, 2013

100. “Interspinous processes spacers and dynamic fixation”

Lisbon’s Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía)

Lisbon, Portugal, February 20-23, 2013

101. “What's new in the treatment of Lumbar Degenerative Disease-A literature review”

The Symposium & Cadaver Workshop in Degenerative Spine Surgery – Chengdu Huaxi Hospital (Medtronic)

Chengdu, China, April 13, 2013

102. “Which Approach for interbody fusion-DLIF,TLIF,PLIF or AlIF?”

The Symposium & Cadaver Workshop in Degenerative Spine Surgery – Chengdu Huaxi Hospital (Medtronic)

Chengdu, China, April 13, 2013

103. “Pedicle screw fixation technique”

The Symposium & Cadaver Workshop in Degenerative Spine Surgery – Chengdu Huaxi Hospital (Medtronic)

Chengdu, China, April 13, 2013

104. “Lumbar Fixation Devices and Options”

Hospital visit to The First Affiliated Hospital of Guangzhou University of Chinese Medicine

Guangzhou, China, April 15, 2013

105. “Minimally invasive TLIF: rationale, patient selection, surgical technique and results”
Hospital visit to The First Affiliated Hospital of Guangzhou University of Chinese Medicine
Guangzhou, China, April 15, 2013

106. “Percutaneous Pedicle Screw Fixation”
Hospital visit to Guangdong Provincial People's Hospital
Guangzhou, China, April 16, 2013

107. “Percutaneous Pedicle Screw Fixation”
Hospital visit to Xi Jing Hospital - Ortho Dept. 1
Xi’an, China, April 17, 2013

108. “Minimally invasive TLIF: rationale, patient selection, surgical technique and results”
Hospital visit to Xi Jing hospital - Ortho Dept. 1
Xi’an, China, April 17, 2013

109. “Percutaneous Pedicle Screw Fixation”
Hospital visit to Xi'an Red Cross Hospital (Hong Hui)
Xi’an, China, April 18, 2013

110. “Minimally invasive TLIF: rationale, patient selection, surgical technique and results”
Hospital visit to Xi'an Red Cross Hospital (Hong Hui)
Xi’an, China, April 18, 2013

111. “Percutaneous Pedicle Screw Fixation”

Hospital visit to Xi Jing hospital - Ortho Dept. 2

Xi’an, China, April 18, 2013

112. “Minimally invasive TLIF: rationale, patient selection, surgical technique and results”

Hospital visit to Xi Jing hospital - Ortho Dept. 2

Xi’an, China, April 18, 2013

113. “Minimally invasive spine surgery using tubular retractors: from decompression to advanced techniques”

The Tenth International Forum of Orthopedics in West China

First Orthopedics Academic Forum of Cross-Strait Medicine Exchange Association

Chengdu, China, April 20, 2013

114. “Cirugía Mínimamente Invasiva para Descompresión Espinal”

Neuroraquis 2013 - XI Jornadas Argentinas de Patología Raquimedular

Mar del Plata, Argentina, May 10-11, 2013

115. “T.L.I.F. Mínimamente Invasivo con Retractores Tubulares”

Neuroraquis 2013 - XI Jornadas Argentinas de Patología Raquimedular

Mar del Plata, Argentina, May 10-11, 2013

116. “Cirugía Mínimamente Invasiva en Patología Tumoral e Infecciosa”

Neuroraquis 2013 - XI Jornadas Argentinas de Patología Raquimedular

Mar del Plata, Argentina, May 10-11, 2013

117. "No Nociceptive Fibers in Epidural Scar Tissue in Patients with Recurrent Pain after Lumbar Discectomy"

XV WFNS World Congress of Neurosurgery

Seoul, Korea, September 8-13, 2013

118. "Osteopontin Expression in Human Epidural Scar Tissue after Lumbar Discectomy"

XV WFNS World Congress of Neurosurgery

Seoul, Korea, September 8-13, 2013

119. "Learning curve and complications of minimally invasive TLIF" (e-Poster)

XV WFNS World Congress of Neurosurgery

Seoul, Korea, September 8-13, 2013

120. "MAST™ interbody fusion Options"

Total MAST™ Degen Solution Surgeon Course (Medtronic)

Brussels, Belgium, September 19-20, 2013

121. "How do I do it – Tratamento das metástases vertebrais"

XVII Curso da Sociedade Portuguesa de Neurocirurgia

Monte Real, Portugal, October 24-25, 2013

122. "Decompression of the spine and cleaning of the disc space. Is decompression performed through a minimally Invasive Approach as effective as an open surgery?"

Lumbar Interbody Fusion Course (Medtronic)

Leiden, Netherlands, October 31 – November 1, 2013

123. “MISS or mess? What can go wrong!”

Minimally Invasive Spine Surgery – 2nd Hands-On Course (Escola de Ciências da Saúde da Universidade do Minho)

Braga, Portugal, November 15-16, 2013

124. “MISS Complications - Tricks of the Trade: How to Stay Out of Troubles!”

Minimally Invasive Spine Surgery – 2nd Hands-On Course (Escola de Ciências da Saúde da Universidade do Minho)

Braga, Portugal, November 15-16, 2013

125. “MAST™ DLIF” (Sessão de vídeo)

3ª Reunião Nacional de Cirurgia Raquidiana Minimamente Invasiva

Porto, Portugal, November 29-30, 2013

ROUND-TABLE PARTICIPATIONS

1. - 39. before 2010

40. Case discussion

Reunião de cirurgia minimamente invasiva da coluna osteoporótica

Lisbon, Portugal, January 16, 2010

41. Case discussion

The Degenerative Spine – Minimally Invasive Surgery Instructional Course (DePuy Spine)

Barcelona, Spain, March 4-5, 2010

42. Evitando o erro em patologia raquidiana - “Apresentação casos clínicos: Diagnósticos diferenciais”

    3º Congresso Nacional da SPPCV – 3º Encontro Luso-Brasileiro SPPCV/SBC

    Porto, Portugal, March 18-20, 2010

43. Minimally Invasive Lumbar Surgery: Show Me the Data - “MIS Fusion in the Lumbar Spine”

    World Spine V

    Santorini, Greece, May 7-9, 2010

44. Simpósio: Técnicas quirúrgicas percutâneas y minimamente invasivas del ráquis vertebral - “Pushing the Limits in MIS Surgery”

    XV Congreso Nacional de la Sociedad Española de Neurocirugía / XXVI Congresso Nacional da Sociedade Portuguesa de Neurocirurgia

    A Coruña, Spain, May 12-14, 2010

45. Comunicaciones orales: Raquis II (MODERATOR)

    XV Congreso Nacional de la Sociedad Española de Neurocirugía / XXVI Congresso Nacional da SPNC

    A Coruña, Spain, May 12-14, 2010

46. Cases – Panel Discussion (MODERATOR)

    Current Techniques in Minimal Access Spine Surgery – Latin America (Medtronic)

    Sunnyvale, CA, USA, September 7-9, 2010

47. Case Studies: Which Decompression to Perform and How? - “Cervical Foraminotomy”

    Total MAST™ Solutions Course (Medtronic)

    Frankfurt, Germany, September 30 – October 1, 2010

48. Tratamento da Hérnia Discal Cervical - “Abordagem anterior versus posterior”

    XIV Curso da Sociedade Portuguesa de Neurocirurgia

    Aveiro, Portugal, October 7-8, 2010

49. Case Discussion

    Advanced Minimally Invasive Surgical Techniques in the Degenerative Lumbar and Thoracic Spine (DePuy Spine)

    Barcelona, Spain, November 18-19, 2010

50. Working Lunch – Direct Lateral Cases – Panel Discussion (MODERATOR)

    Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

    Memphis, TN, USA, January 5-7, 2011

51. Case Studies: Which Decompression to Perform and How? - “Cervical Microdiscectomy”

    Total MAST™ Solutions Course (Medtronic)

    Leiden, Netherlands, February 24-25, 2011

52. Case Studies: MAST™ Fusion Techniques - “TLIF Technique”

    Total MAST™ Solutions Course (Medtronic)

    Leiden, Netherlands, February 24-25, 2011

53. Cases – Panel Discussion (MODERATOR)

    Current Techniques in Minimal Access Spine surgery – Mexico (Medtronic)

    Miami, FL, USA, March 21-22, 2011

54. Cases – Panel Discussion (MODERATOR)

Current Techniques in Minimal Access Spine surgery – Brazil (Medtronic)

Miami, FL, USA, March 21-22, 2011

55. Expanding indications with Minimally Invasive Techniques (Co-MODERATOR)

Summer University 2011 (Medtronic)

Paris, France, July 6-8, 2011

56. Case Presentations

Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

Memphis, TN, USA, August 1-3, 2011

57. Casos Clínicos de Patologia da Coluna Lombar (MODERATOR)

Reunião de Casos Clínicos da Sociedade Portuguesa de Patologia da Coluna Vertebral

Montargil, Portugal, October 1, 2011

58. Desafios ao raciocínio clínico

XV Curso da Sociedade Portuguesa de Neurocirurgia

Montargil, Portugal, October 1, 2011

59. Grupo de discussão – Casos clínicos: Coluna Vertebral (MODERATOR)

XV Curso da Sociedade Portuguesa de Neurocirurgia

Montargil, Portugal, October 1, 2011

60. Iniciando a cirurgia raquidiana minimamente invasiva – "Dificuldades iniciais – *Tips & Tricks*"

2ª Reunião Nacional de Cirurgia Raquidiana Minimamente Invasiva

Porto, Portugal, November 25-26, 2011

61. Round Table Discussion: Case Based Debate on MIS versus Open Surgery

    Minimally Invasive Surgical Techniques in the Degenerative Lumbar – A Cadaveric Workshop (DePuy Spine)

    Barcelona, Spain, December 1-2, 2011

62. Free Papers Session (MODERATOR)

    4º Congresso Nacional da Sociedade Portuguesa de Patologia da Coluna Vertebral

    Monte Real, March 15-17, 2012

63. Situações clínicas complexas: Lombalgia/ciatalgia após cirurgia de hérnia discal – "Epidurolise endoscópica por radiofrequência"

    4º Congresso Nacional da Sociedade Portuguesa de Patologia da Coluna Vertebral

    Monte Real, March 15-17, 2012

64. Lumbar disc disease (CO-MODERATOR + PRESENTATION AND DISCUSSION OF CASE)

    AOSpine Advanced Symposium - Degenerative Spine

    Tomar, Portugal, April 13-14, 2012

65. Lumbar stenosis and instability (PRESENTATION AND DISCUSSION OF CASE)

    AOSpine Advanced Symposium - Degenerative Spine

    Tomar, Portugal, April 13-14, 2012

66. Lumbar adult deformity (CO-MODERATOR)

    AOSpine Advanced Symposium - Degenerative Spine

    Tomar, Portugal, April 13-14, 2012

67. Percutaneous spinal fusion surgery assisted by navigation and O-arm (Friedrich Weber) (MODERADOR)

    Neuro 2012. Congresso Nacional das Sociedades Portuguesas de Neurologia e Neurocirurgia

    Porto, Portugal, May 10-12, 2012

68. Sessão de Posters – P007 – RAQUIS (MODERATOR)

    Neuro 2012. Congresso Nacional das Sociedades Portuguesas de Neurologia e Neurocirurgia

    Porto, Portugal, May 10-12, 2012

69. Case Studies: Fusion Techniques with MAST

    Total MAST™ Degen Solution Surgeon Course (Medtronic)

    Vienna, Austria, July 12-13, 2012

70. Modern Round Table – "Fracture / Deformity / Tumor"

    III World Congress of Minimally Invasive Spine Surgery & Techniques

    Praia do Forte, Brazil, August 16-18, 2012

71. Case Presentations (Cervical Spine)

    SENEC (Sociedad Española de Neurocirugía) II Hands-on Course "Anatomy and Surgical Strategies in Spinal Surgery"

    Alicante, Spain, September 27-29, 2012

72. e-Voting Case Studies: Fusion Techniques

    Lumbar Interbody Fusion Course (Medtronic)

    Bordeaux, France, October 11-12, 2012

73. Grupos de discussão – Casos clínicos II: Patologia da Coluna

    XVI Curso da Sociedade Portuguesa de Neurocirurgia

    Lousã, Portugal, October 18-20, 2012

74. Tumores intramedulares – "Cirurgia"

    V Congresso Nacional da Associação Portuguesa de Neuro-Oncologia

    Vila Nova de Gaia, Portugal, October 26-27, 2012

75. "Role of minimal invasive spine techniques" (MODERATOR)

    Lisbon's Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía)

    Lisbon, Portugal, February 20-23, 2013

76. Case discussion

    Hospital visit to The First Affiliated Hospital of Guangzhou University of Chinese Medicine

    Guangzhou, China, April 15, 2013

77. Balanço sagital e parâmetros espino-pélvicos: da filogenia às noções fundamentais que todo o neurocirurgião deve saber (João Pinheiro-Franco) (MODERATOR)

    29º Congresso Nacional da Sociedade Portuguesa de Neurocirurgia

    Coimbra, Portugal, May 23-25, 2013

78. Mesa Redonda: "Balanço sagital e cirurgia raquidiana" (MODERATOR)

    29º Congresso Nacional da Sociedade Portuguesa de Neurocirurgia

    Coimbra, Portugal, May 23-25, 2013

79. A importância dos parâmetros espino-pélvicos na patologia da coluna, suas implicações na clínica e na cirurgia (João Pinheiro-Franco) (MODERATOR)

    29º Congresso Nacional da Sociedade Portuguesa de Neurocirurgia

    Coimbra, Portugal, May 23-25, 2013

80. Should you treat with surgery based on pain? (Co-MODERATOR)

    Summer University 2013 (Medtronic) – Facing Today's Spine Surgery Challenges

    Lisbon, Portugal, July 3-5, 2013

81. Minimally invasive surgery: What is the clinical evidence saying and what are the challenges? (Co-MODERATOR)

    Summer University 2013 (Medtronic) – Facing Today's Spine Surgery Challenges

    Lisbon, Portugal, July 3-5, 2013

82. Workshop and Breakout session: "TLIF / Percutaneous fixation"

    Total MAST™ Degen Solution Surgeon Course (Medtronic)

    Brussels, Belgium, September 19-20, 2013

83. Case Studies : Fusion Techniques with MAST™

    Total MAST™ Degen Solution Surgeon Course (Medtronic)

    Brussels, Belgium, September 19-20, 2013

84. Intervenção em Dor - "Evidência em Cirurgia da Coluna"

    IV Congresso Interdisciplinar de Dor (Associação Portuguesa para o Estudo da Dor)

    Porto, Portugal, October 17-19, 2013

85. Discussion groups – Clinical cases III

XVII Curso da Sociedade Portuguesa de Neurocirurgia

Monte Real, Portugal, October 24-25, 2013

86. Breakout session: “PLIF - TLIF - MIDLIF (Technique ; Complications ; Surgical Pearls, patient case discussion – Open and MAST)”

Lumbar Interbody Fusion Course (Medtronic)

Leiden, Netherlands, October 31 – November 1, 2013

87. Case discussion

Lumbar Interbody Fusion Course (Medtronic)

Leiden, Netherlands, October 31 – November 1, 2013

ORGANIZING COMMITTEE / FACULTY MEMBER OF SCIENTIFIC MEETINGS

1. - 31. before 2010

32. International 28th Course for Percutaneous Endoscopic Spine Surgery and Complementary Minimal Invasive Techniques

- Faculty Member

Zurich, Switzerland, January 28-29, 2010

33. Challenges in Minimally Invasive Techniques of the Degenerative Spine (Medtronic)

- Faculty Member
- Coordinator Cadaver Anatomic Workshop: “Minimally Invasive Decompression Techniques”

Leiden, Netherlands, February 11-12, 2010

34. The Degenerative Spine – Minimally Invasive Surgery Instructional Course (DePuy Spine)

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Barcelona, Spain, March 4-5, 2010

35. 3º Congresso Nacional da SPPCV – 3º Encontro Luso-Brasileiro SPPCV/SBC

    - Member of the Organizing Committee

    Porto, 18 a 20 de Março de 2010

36. Current techniques in advanced spinal care – Brazil (Medtronic)

    - Faculty Member
    - Monitor Cadaver Anatomic Workshops

    Miami, FL, USA, April 25-26, 2010

37. Minimally Invasive Technologies in the Spine; using a complete range of technologies (Medtronic)

    - Faculty Member
    - Monitor Cadaver Anatomic Workshops

    Bordeaux, France, June 11-12, 2010

38. Curso Prático de Cirurgia da Coluna Lombar para Internos

    - Member of the Organizing Committee
    - Monitor Cadaver Anatomic Workshops

    Barcelona, Spain, July 9, 2010

39. Current Techniques in Minimal Access – Latin America (Medtronic)

    - Faculty Member

- Monitor Cadaver Anatomic Workshops

Sunnyvale, CA, USA, September 7-9, 2010

40. Total MAST™ Solutions Course (Medtronic)

    - Faculty Member
    - Monitor Cadaver Anatomic Workshops

    Frankfurt, Germany, September 30 – October 1, 2010

41. Advanced Minimally Invasive Surgical Techniques in the Degenerative Lumbar and Thoracic Spine (DePuy Spine)

    - Faculty Member
    - Monitor Cadaver Anatomic Workshops

    Barcelona, Spain, November 18-19, 2010

42. Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

    - Faculty Member
    - Monitor Cadaver Anatomic Workshops

    Memphis, TN, USA, January 5-7, 2011

43. Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo I - Cirurgia da Patologia da Coluna Cervical

    - Faculty Member
    - Monitor Cadaver Anatomic Workshops

    Lisbon, Portugal, January 14-15, 2011

44. Total MAST™ Solutions Course (Medtronic)

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Leiden, Netherlands, February 24-25, 2011

45. Current Techniques in Minimal Access Spine surgery – Mexico (Medtronic)

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Miami, FL, EUA, 21 e 22 de Março de 2011

46. Current Techniques in Minimal Access Spine surgery – Brazil (Medtronic)

- Chairman
- Monitor Cadaver Anatomic Workshops

Miami, FL, USA, March 21-22, 2011

47. Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo 2 - Patologia da Coluna Tóraco-Lombar

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Lisboa, 1 e 2 de Abril de 2011

48. Curso de Actualização em Cirurgia Vertebral (Sociedade Portuguesa de Neurocirurgia) - Módulo 3 – Cirurgia por Técnicas Minimamente Invasivas

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Lisbon, Portugal, April 1-2, 2011

49. Summer University 2011 (Medtronic)

- Faculty Member

Paris, France, July 6-8, 2011

50. Current Techniques in Minimal Access Spine surgery - Latin America (Medtronic)

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Memphis, TN, USA, August 1-3, 2011

51. XV Curso da Sociedade Portuguesa de Neurocirurgia

- Member of the Organizing Committee

Montargil, Portugal, October 20-21, 2011

52. 2ª Reunião Nacional de Cirurgia Raquidiana Minimamente Invasiva

- Member of the Organizing Committee

Porto, Portugal, November 25-26, 2011

53. Minimally Invasive Surgical Techniques in the Degenerative Lumbar – A Cadaveric Workshop (DePuy Spine)

- Faculty Member
- Monitor Cadaver Sessions

Barcelona, Spain, December 1-2, 2011

54. Lisbon's Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía) - Módulo I – Cervical Spine Surgery

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Lisbon, Portugal, February 3-4, 2012

55. 4º Congresso Nacional da Sociedade Portuguesa de Patologia da Coluna Vertebral

- Member of the Scientific Committee

Monte Real, Portugal, March 15-17, 2012

56. AOSpine Advanced Symposium - Degenerative Spine

- National Faculty Member

Tomar, Portugal, April 13-14, 2012

57. Lisbon's Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía) - Módulo III – Minimal Invasive Spine Surgery

- Faculty Member
- Monitor Cadaver Anatomic Workshops

Lisbon, Portugal, June 1-2, 2012

58. Total MAST™ Degen Solution Surgeon Course (Medtronic)

- Chairman
- Monitor Cadaver Anatomic Workshops

Vienna, Austria, July 12-13, 2012

59. Fundamentals of Minimally Invasive Spine Surgery and Balloon Kyphoplasty Course (Medtronic)

- Faculty Member
- Monitor Cadaver Anatomic Lab

Salzburg, Austria, August 13-14, 2012

60. III World Congress of Minimally Invasive Spine Surgery & Techniques

- Invited Speaker - International Special Guest
- Member of the International Scientific Program Board

Praia do Forte, Brazil, August 16-18, 2012

61. SENEC (Sociedad Española de Neurocirugía) II Hands-on Course "Anatomy and Surgical Strategies in Spinal Surgery"

- Faculty Member
- Monitor Cadaver Anatomic Lab

Alicante, Spain, September 27-29, 2012

62. Lumbar Interbody Fusion Course (Medtronic)

- Faculty Member
- Monitor Cadaver Anatomic Lab

Bordeaux, France, October 11-12, 2012

63. XVI Curso da Sociedade Portuguesa de Neurocirurgia

- Member of the Organizing Committee

Lousã, Portugal, October 18-20, 2012

64. Minimally Invasive Spine Surgery Hands-On Course (Escola de Ciências da Saúde da Universidade do Minho)

- Monitor Cadaver Anatomic Lab

Braga, Portugal, November 16-17, 2012

65. Lisbon's Hands-on Spine Course (Faculdade de Ciências Médicas de Lisboa + Sociedade Portuguesa de Neurocirurgia + Sociedad Española de Neurocirugía)

- Faculty Member
- Monitor Cadaver Anatomic Lab

Lisbon, Portugal, February 20-23, 2013

66. The Symposium & Cadaver Workshop in Degenerative Spine Surgery – Chengdu Huaxi Hospital (Medtronic)

- Faculty Member
- Monitor Cadaver Anatomic Lab

Chengdu, China, April 13, 2013

67. 29º Congresso Nacional da Sociedade Portuguesa de Neurocirurgia

- Member of the Organizing Committee

Coimbra, Portugal, May 23-25, 2013

68. Summer University 2013 (Medtronic) – Facing Today's Spine Surgery Challenges

- Faculty Member

Lisbon, Portugal, July 3-5, 2013

69. Total MAST™ Degen Solution Surgeon Course (Medtronic)

- Faculty Member
- Monitor Cadaver Anatomic Lab

Brussels, Belgium, September 19-20, 2013

70. XVII Curso da Sociedade Portuguesa de Neurocirurgia

- Member of the Organizing Committee

Monte Real, Portugal, October 24-25, 2013

71. Lumbar Interbody Fusion Course (Medtronic)

- Chairman
- Monitor Cadaver Anatomic Lab

Leiden, Netherlands, October 31 – November 1, 2013

72. Minimally Invasive Spine Surgery – 2nd Hands-On Course (Escola de Ciências da Saúde da Universidade do Minho)

- Faculty Member
- Monitor Cadaver Anatomic Lab

Braga, Portugal, November 15-16, 2013

73. Viper 1 Step Meeting (DePuy Synthes Spine)

- Faculty Member

Lucerne, Switzerland, November 25-26, 2013

74. 3ª Reunião Nacional de Cirurgia Raquidiana Minimamente Invasiva

- Member of the Organizing Committee

Porto, Portugal, November 29-30, 2013

RESEARCH PROJECTS

1. "The Delphi Trial – I(RCT)2: international randomized clinical trial of rheumatoid craniocervical treatment, an intervention-prognostic trial comparing 'early' surgery with conservative treatment" [ISRCTN65076841] 2005-2008

2. “Contributos da epiduroscopia em doentes com fibrose epidural lombar” [Contributions from epiduroscopy in patients with lumbar epidural fibrosis]

   - Faculty of Medicine of University of Porto, Portugal and Centro Hospitalar São João, Porto, Portugal

   - PhD thesis 2010-2014

3. “MASTERS-D - A Prospective, Multicenter Observational Study on MAST™ Fusion Procedures for the Treatment of the Degenerative Lumbar Spine” 2010-2012

   - Advisory Board Member
   - Main Investigator in Porto Investigation Site (PT01)
   - Publication Committee Member

4. “NUCLEUS – Regeneration in a hostile microenvironment - expansion of nucleus pulposus cells” [PTDC/SAU-BMA/118193/2010] 2011-

0108

Baalman Rainer

Lebenslauf

Persönliche Daten

Name, Vorname:	Baalmann, Rainer
Anschrift:	Bussardhöhe 36 48488 Emsbüren
Familienstand:	verheiratet
Konfession:	römisch-katholisch
Staatsangehörigkeit:	deutsch

Schulausbildung:

1971 bis 1974	Grundschule

1975 bis 1984	Abitur am Kreisgymnasium Meppen

Berufsausbildung/Studium:

1984 bis 1985	Bundeswehr (W 15)
1986 bis 1987	Ausbildung zum Krankengymnasten in Meppen
1988	Anerkennungsjahr im Krankenhaus Ludmillenstift Meppen
1989 bis 1991	Krankenhaus- und Praxistätigkeit in Meppen und Lingen als Krankengymnast (Ludmillenstift; Krankengymnastik-Praxis Ute Sohn)
1991 bis 1997	Medizinstudium an der Heinrich-Heine-Universität in Düsseldorf
01.01.1998 bis 31.07.1998	AIP in der Chirurgischen Abteilung des Mathias-Spitals in Rheine (Chefarzt Prof. Lausen)

01.08.1998 bis 30.06.1999	Beendigung des AIPs in der Neurologischen Abteilung des Ludmillenstifts in Meppen (Chefärzte Dr. Dust und Dr. Junghänel)
Seit dem 01.07.1999	Assistenzarzt in der Neurochirurgischen Abteilung des Ludmillenstifts Meppen (Chefärzte Dr. Röttger und Dr. Sandvoß)
24.10.2005	Facharzt für Neurochirurgie
Januar bis Dezember 2006	Als Neurochirurgie-Facharzt in der Wirbelsäulen-Abteilung in Bad Oeynhausen gearbeitet (Auguste Viktoria Klinik)
2007 bis 2009	Facharzt Ludmillenstift in Meppen (Wirbelsäulen-Zentrum)
19.05.2008	Promotionsprüfung
Januar 2009 bis heute	Oberarzt Wirbelsäulen-Zentrum und ärztlicher Leiter des MVZ in Meppen

Mai/Juni 2013 Zertifizierter Wirbelsäulenchirurg

(DWG Basis- und Masterzertifikat)

Title of abstract:

- Endoscopic Spine Surgery Since 2000. A Personel Experiance

0109

John chiu

Title of abstract:

- Minimally Invasive Spine Surgery (MISS) Treatment for “Failed Back Syndrome” with Spinal Imbalance, Junctional Disc Herniation and SI Joint Dysfunction Syndromes
- A Surgeons Perspective of Endoscopic Minimally Invasive Spine Surgery Including Pearls and Tricks
- A Surgeons Perspective on Integration of Digital Technological Convergence and OR Control System for Endoscopic Minimally Invasive Spine Surgery (MISS)

0110

Fujio Ito

FUJIO ITO M.D., ph.D

OFFICE ADDRESS AND TELEPHONE

Aichi Spine institute & ITO Orthopaedic Clinic

41 Gouhigasi, Takao, Fuso-cho, Niwa-gun, Aichi-ken,

480-0102 Japan

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http://www.itoortho.or.jp/ ito@itoortho.or.jp

PRESENT APPOINTMENT

President of Aichi Spine institute

Visiting professor of spine surgery, department of neurosurgery, Fujita Health University

President elect of 2nd Asian Congress of Minimally Invasive Spine Surgery & Techniques

At Nagoya Japan, 21th ~23rd, Mar.2013

Secretary-general of the Japan Spine Dock Society

BIRTH DATE AND PLACE

June 25th, 1946 Aichi-ken, Japan

EDUCATION

Medical School of Nagoya University (1970)

Internship: Medical School of Nagoya University (1970-1971)

Residency: Nagoya National Hospital, Neurology (1971-1972)

CLINICAL APPOINTMENT

Chubu Labor Accident Hospital, Orthopaedic surgery (1972-1978)

Medical School of Nagoya University (1978-1983)

Chief of Physical Medicine and Rehabilitation

Inuyama Central Hospital

Director of Orthopaedic surgery (1983-1987)

Vice President of the Hospital (1987-1995)

President of Aichi Spine institute (1996-present)

Visiting professor of spine surgery, Fujita Health University (2008-present)

MEMBERSHIPS

The Japanese Orthopaedic Association

Japanese Society for the Study of Endoscopic & Minimally Invasive Spine Surgery

Japanese Society of Lumbar Spine Disorders

Pacific Asian Society of Minimally Invasive Spine Surgery

President-elect of

2nd Asian Congress Minimally Invasive Spine Surgery and Technique 2013

SPECIALITY

Percutaneous Endoscopic Surgery (lumbar, Cervical)

Microendoscopic laminoplasty

Percutaneous Vertebroplasty

Artificial Cervical Nucleus Replacement

MIS-TLIF, AxiaLif

Title of abstract:

- Percutaneous Endoscopic Servical Discectomy - Anterior Posterior Approaches
- Percutaneous endoscopic unilateral laminotomy for lumbar lateral recess stenosis and/or high-migrated lumbar disc herniations

Percutaneous Endoscopic Unilateral Laminotomy for lumbar lateral recess stenosis and/or high-migrated lumbar disc herniations

Fujio Ito : Aichi Spine Insitute

Purpose: The usefulness of Percutaneous Endoscopic Laminotomy (PEL) for lateral recess stenosis (LRS) and/or high-migrated lumbar disc herniations.

Objects: The average age was 68.0 years old (17 females and 40 males). LDH with lateral recess-45 cases, high-migrated LDH-18, lateral spinal canal stenosis-15, ring apophyseal separation-8, central spinal canal stenosis-6, and spinal cyst-5.

Methods: PEL requires an 8 mm incision under epidural anesthesia. Water irrigation provides clear vision and keeps the coagulator/drill from overheating. The lamina was bored using a diamond burr. The yellow ligament was resected using a punch or a small forceps.

Results: Average operation time was 85.4 minutes. The first operations' results were excellent in 49, good in 35, fair in 8 and poor in 5 using Macnab's pain grading. VAS scores of the lower extremity numbness and pain, JOA scores, and intermittent claudication severities were all improved with statistically significant differences. A pinhole tear of the dura was repaired by patch technique. The other dural tear caused a prolapsed cauda equina, which was immediately sutured using a Quadrant retractor. Two of the four cases of insufficient decompression were revised, and four cases of residual numbness were treated with conservative therapy.

Discussion: The 8 mm incision has little damaging effect on the muscle, and almost no pain is felt after the operation. If there is a hernia mass, the cannula’s oblique tip is useful also in retracting the root.

Conclusion: PEL is minimally invasive. Special attention must be paid to avoid root damage and dural tear.

0111

Stefan Hellinger

Title of abstract:

- Is there a place for minimal invasive and endoscopic surgery on the lumbar spine ? Are there any advantages for the future
- Is there a place for minimal invasive and endoscopic surgery on the lumbar spine ? Are there any advantages for the future

Management of Low Back Pain by Applying the Combination of Facet Radiofrequency and Nucleoplasty Injection

Ziad Elchami, M.D., Stefan Hellinger, M.D.

ABSTRACT

Background: Back pain is one of the most common causes of pain and disability. There are many causes of back pain, and determining the source of pain can help guide treatment of this common problem. Common causes of back pain include back muscle stain, herniated disc, spinal stenosis, and other conditions. The purpose of the study is to evaluate the effectiveness of using the combined therapy of Lumbar Facet Radiofrequency (RF) and Nucleoplasty in the treatment of LBP with lower limb pain, in patients where the role of radicular pain due to bulging disc and facet involvement is significant.

Methods: 20 patients with LBP were evaluated at the Pain & Headache Center, International Medical Center, KSA, with discogenic pain. They all underwent facet radiofrequency ablation and Nucleoplasty. The RF was applied to the facets, with the following settings: temperature: 80^0C for 60sec for 3 rounds. Trial was conducted over a 24-month period. Inclusive criteria: 8 males, 12 females, ages ranging from 42-68; patients' mean age is 55 years old. Exclusive criteria: pregnant women, children, anyone with a pacemaker, and anyone who has history of bleeding tendencies.

Results: An average improvement of 85% according to the numeric pain scale was seen in all patients. Results were sustained for a period of 20 months.

Conclusion: Patients with radicular low back pain due to bulging disc and significant facet involvement respond very well to the combined therapy and the benefit has lasted for 20 months period.

The Effectiveness of Disc Fix Therapy in the Treatment of Discogenic Low Back Pain

Stefan Hellinger, M.D., Ziad Elchami, M.D., Mohammad Basheer Issa, M.D., Eloisa Umlas, Rabah Massoud

ABSTRACT

Background: Low back pain (LBP) is a common concern, affecting almost all people during their lives. Common causes involve disease or injury to the muscles, bones/joints, disc problem and/or nerves of the spine. Once non-invasive treatments stop giving benefits, some invasive medical approaches can take place. This study aims to evaluate the effectiveness of disc fix therapy in the treatment of discogenic low back pain in patients with chronic unremitting LBP due to a contained disk herniation.

Methods: 6 patients were evaluated, according to the American Pain Society (APS) classification of LBP at the Pain & Headache Center, International Medical Center, KSA, with persistent LBP due to a contained disk herniation. They all underwent disc fix therapy, which was applied to the disc. Inclusive criteria: 2 males, 4 females; ages ranging from 38-65, with mean of 52 years. Exclusive criteria: pregnant women, children, anyone with a pacemaker, and anyone who has history of bleeding tendencies. Trial was conducted over 18-month period.

Results: An average improvement of 90% according to the numeric pain scale was seen in all. Results were sustained for a period of at least 9 months.

Conclusion: Patients with chronic unremitting LBP due to a contained disk herniation responded very well to disc fix therapy, done in timely fashion. The benefit of which lasted for almost 12 months.

0112

Kai Uwe Lewandrowski

Title of abstract:

- Technique and Indications of Transforaminal Decompression for Lumbar Herniated Disc and Lateral Recess Stenosis
- Techniques and Indication of Endoscopic Posterior Cervical Foraminotomy
- Endosopically Assisted Interbody Fusion Techniques
- Complications of Lumbar Endoscopic Microdiscectomy Surgery
- Techniques and Indicatinos for Endoscopic Lumbar Microdiscectomy and Lateral Recess Decompression

0113

Alper Muradov

Title of abstract :

- Percutaneous Treatment of Lumbar Disc Herniations By Ozone Discolysis

Percutaneous Treatment of Lumbar Disc Herniations By

Ozone Discolysis.

Alper Muradov

Purpose: The use of open surgical approaches in treatment of disc herniations is reduced since new percutaneous techniques allowing reducing of the disc and improvement of the radicular function are gaining interest. Oxygen ozone discolysis is a minimal invasive technique for treatment of disc herniations that reveals on biochemical properties of a gas mixture of oxygen and ozone.Studies on the spontaneous disappearance of disc fragments have demonstrated autoimmune responses with a chronic inflammatory reaction. Different studies showed that a brief, calculated, oxidative stress by ozone administration may correct a persistent imbalance due to excessive, chronic oxidative injury

Materials and methods: For the period September 2008 -January 2014 , 3049 patients underwent percutaneous injection of O2-O3 mixture for treatment of symptomatic disc herniations.All patients had CT/MRI,and complained of back pain and leg pain.The patients were divided in four groups.

Group 1:L4-L5 or/and L5-S1 herniations,

Group 2:Multiple herniated discs,

Group3:Degenerative Disease complicated by herniation,

Group4:Failed Back Surgery Syndrome(FBSS)

The results after procedure were evaluated by modified Mc Nab method,VAS and Oswestry Disability Index.

Results:Group 1-excellent80,2%,good 13,1%,poor 6,7% .Group 2 excellent 75,6%,good 15,5%,poor 9,9%.Group 3-excellent 49,1%,good 22,7,poor 28,2,Group 4 –excellent 44,5%,good 23,7% ,poor 31,8%

Conclusion:Intradiscal O2-O3 injection is a non surgical option for treatment of disc herniations that failed to respond to conservative management,before or after open surgery or when surgery is contraindicated or impossible.

0114

Gun Keorochana

NAME Gun Keorochana M.D.

SEX Male

PLACE OF BIRTH Bangkok, Thailand

PRESENT ADDRESS Spine Unit, Department of Orthopaedics,

Ramathibodi Hospital, Mahidol University

Rama VI Rd., Rajthevee, Bangkok,

Thailand 10400

TEL. +66 2 2011589 FAX. +66 2 2011599

e-mail: gun_keo@yahoo.com

EDUCATION

DEGREE/CERTIFICATE	GRADUATED YEAR	INSTITUTION
- Visiting Minimally Invasive and Endoscopic Spine Surgery Fellowship	2010	Desert Institute for Spine Care (DISC), Phoenix, AZ, USA
- International Spine Fellowship	2008-2010	UCLA comprehensive spine center, David Geffen School of Medicine

		at UCLA, Los Angeles, CA, USA
- Spine Fellowship	2006	Department of Orthopaedics Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand
- Diplomat Thai Board of Orthopaedic Surgery	2005	Srinagarind Hospital, Faculty of Medicine, Khon Kaen University Khon Kaen, Thailand
- Diplomat of Postgraduate Medical Science (surgery)	2001	Faculty of Graduate Thai Studies, Khon Kaen University Khon Kaen, Thailand
- Doctor of Medicine (1st class Honors.)	1999	Siriraj Hospital Faculty of Medicine, Mahidol University Bangkok, Thailand

PROFESSIONAL EXPERIENCE

CURRENT POSITION	DURATION	INSTITUTION
- Lecturer	2006-present	Spine Unit, Department of Orthopaedics,

Faculty of Medicine,

Ramathibodi Hospital

Mahidol Universitiy

Bangkok, Thailand

AWARDS, HONORS

APOA Spine Traveling Fellowship 2005 to Hong Kong, Sendai and Taipei

MEMBERSHIPS

The Royal College of Orthopaedic Surgeons of Thailand (RCOST)
Asia Pacific Orthopaedic Association (APOA)

AO Spine International

North American Spine Society (NASS)

RESEARCH EXPERIENCES

- Clinical research:

-Outcome and prognostic factors after decompression and posterolateral fusion with pedicular screws in degenerative lumbar spine diseases including lumbar spinal stenosis and degenerative scoliosis

-Many kinetic MRI studies in the lumbar spine investigating the dynamic changes of intervertebral disc, facet joint, interspinous ligament and segmental mobility during flexed and extended motion.

-Results of transforaminal and interlaminar epidural steroid injection in spinal stenosis patients

-Clinical and radiographic outcome of different bone substitutes used in transpedicular grafting in thoracolumbar fracture.

-Comparison of different graft choices on outcome of lumbar spinal fusion in primary and revision cases e.g. BMPs, autograft and bone marrow aspirate

-The quality of life and functional outcome after Transforaminal endoscopic discectomy of the lumbar spine.

-Results of endoscopic discectomy and radiofrequency therapy (DiscFx) in discogenic low back pain patients .

-Novel application of endoscopic medial branches denervation in the patients with facet joint syndrome. The early experience.

- Basic science research:

Spinal fusion

Many projects of spinal fusion model investigating the effect of novel growth factors, cell and gene therapy

-Effect of bone morphogenetic protein binding peptide (BBP) on BMP-7 enhanced bone healing in rodent spinal fusion model

-Effect of BBP on OP-1 in femoral defect animal model

-The efficacy of lentiviral-BMP-2 transfected human BMC in rat spinal fusion model

Disc degeneration

Developing novel disc degeneration model in rat caudal discs and testing with growth factors, gene therapy

-Different deterioration of disc degeneration of different needle gauges in rat tail puncture model

-Use of dose-dependent BMP-2 on rat caudal disc degeneration model

-Regenerative effect of lentiviral-BMP-2 transfected human bone marrow cell in degenerated rat caudal disc model

-Feasibility of whole disc transplantation in rat tail

Inflammatory response of different growth factors

-In vitro and in vivo studies (subcutaneous and submuscular implantation) of inflammatory reaction of BMP-2, BMP-7 with/without BBP

Tumor growth response to different growth factors

-Effect of different growth factors with/without spp-24 on tumor cell

culture and tumor enlargement in tibia of SCID mice model.

PUBLICATIONS

1. **Keorochana G**, Chanplakorn P, Laohacharoensombat W, Larbcharoensub N. Spinal and Bilateral Breast Metastases of Embryonal Rhabdomyosarcoma: A Case report; *J Med Assoc Thai*; Vol 90(4);50-56, 2007.
2. Kong MH, He W, Tsai YD, Chen NF, **Keorochana G**, Do DH, Wang JC. Relationship of facet tropism with degeneration and stability of functional spinal unit. *Yonsei Med J*. 2009 Oct 31;50(5):624-9.
3. Lee KB, Taghavi CE, Hsu MS, Song KJ, Yoo JH, **Kerochana G**, Ngo SS, Wang JC. The Efficacy of rhBMP-2 Versus Autograft for Posterolateral Lumbar Spine Fusion in Elderly Patients. *Eur spine J* Dec 2009.
4. Taghavi CE, Lee KB, **Keorochana G**, Tzeng ST, Yoo JH, Wang JC. Bone Morphogenetic Protein-2 and Bone Marrow Aspirate with Allograft as Alternatives to Autograft in Instrumented Revision Posterolateral Lumbar Spinal Fusion: A Minimum Two-Year Follow-Up Study. *Spine* 2010 Feb 4.
5. **Keorochana G**, Laohachareonsombat W, Woratanarat P. Functional outcome after Decompression and Instrumented Arthrodesis in Degenerative Lumbar Spinal Stenosis: Factors influencing outcome. *J Med Assoc Thai*; in press.
6. **Keorochana G**, Tawonsawatruk T, Laohachareonsombat W, Wajanawisit W, Woratanarat P. The results of Decompression and Instrumented Fusion with Pedicular Screw Plate System in Degenerative Scoliosis Patients with Spinal Stenosis. A Prospective Observational Study. *J Med Assoc Thai*; 2010 Apr;93(4):457-61.
7. **Keorochana G**, Taghavi CE, Tzeng ST, Morishita Y, Yoo JH, Lee KB, Liao JC, Wang JC. MRI Grading of Interspinous Ligament Degeneration of the Lumbar Spine and its Relation to Aging, Spinal Degeneration and Segmental motion. *J Neurosurg Spine* 2010 Oct;13(4):494-9.
8. Liao JC, Fan KF, **Keorochana G**, Chen WJ, Chen LH. Transpedicular grafting following short-segment pedicle instrumentation for thoracolumbar burst fracture. Calcium sulphate cement versus autogenous iliac bone graft. *Spine* 2010 Jul 1;35(15):1482-8.
9. Taghavi CE, Lee KB, He W, **Keorochana G**, Murray SS, Brochmann EJ, Uludag H, Behnam K, Wang JC. Bone Morphogenetic Protein Binding Peptide Mechanism and Enhancement of Osteogenic Protein-1 Induced Bone Healing. *Spine* 2010 Nov 1;35(23):2049-56.
10. Lee KB , Taghavi CE, Song KJ, Sintuu C, Yoo JH, **Keorochana G**, Tzeng ST, Fei Z, Liao JC, Wang JC. Inflammatory Characteristics of rhBMP-2 In Vitro and in an In Vivo Rodent Model. *Spine* 2011 Feb 1;36(3):E149-E154.
11. **Keorochana G**, Taghavi CE, Lee KB, Yoo JH, Liao JC, Fei Z, Wang JC. Effect of Sagittal Alignment on Kinematic Changes and Degree of Disc Degeneration in the Lumbar Spine: An Analysis Using Positional MRI. *Spine* 2011 Jan 14. [Epub ahead of print]
12. **Keorochana G**, Taghavi CE, Tzeng ST, Lee KB, Liao JC, Yoo JH, Wang JC. MRI classification of interspinous ligament degeneration of the lumbar spine: Intraobserver and interobserver reliability and the frequency of disagreement. *Eur Spine J* 2010 Oct;19(10):1740-5. Epub 2010 Feb 21.
13. **Keorochana G,** Johnson JS, Taghavi CE, Liao JC, Lee KB, Yoo JH, Ngo SS, Wang JC. The effect of needle size inducing degeneration in the rat caudal disc: evaluation using radiograph, magnetic resonance imaging, histology, and immunohistochemistry. *Spine J*. 2010 Nov;10(11):1014-23.

BOOK CHAPTERS

1. **Keorochana G**, Keorochana S. Stem cell in Orthopaedics. In: Channoom T, Woratanarat P, Kijkunasathian C,Chanplakorn P (eds.)*The Yearbook of Orthopaedic review*. Bangkok: pp.29-37, 2007.
2. **Keorochana G**. Thoracolumbar Spine Fracture treatment options: Conservative management. In: Suppaphol S, Kijkunasathian C, Chanplakorn P, Laohachareonsombat S (eds.) *The Yearbook of Orthopaedic review*. Bangkok: pp.33-45, 2008.
3. **Keorochana G.** Treatment of Lumbar Disc Herniation with Minor Interventions: Epidural and Selective Nerve Root Steroid Injection. In: Suppaphol S, Kijkunasathian C, Chanplakorn P, Laohachareonsombat S (eds.)
   The Yearbook of Orthopaedic review. Bangkok: pp.186-192, 2008.

PRESENTATIONS – PODIUM

1. **Keorochana G,** Laohacharoensombat W. Posterior only approach: Resection of Chordoma of the Sacral Spine. Podium presentation at The 6th Combined Congress of Spine and Pediatric Orthopaedic Sections, APOA, November 2005, Taipei, Taiwan.
2. **Keorochana G.** Pathogenesis and Pathophysiology of Degenerative diseases of the Spine. Ramathibodi Academic Conference. May1-4 2007 Impact Arena, Muangthong Thani, Bangkok, Thailand.
3. **Keorochana G**, Taghavi CE, Tzeng ST, Morishita Y, Yoo JH, Lee KB, Wang JC. Reliability of MRI Grading of Interspinous Ligament Degeneration and its Relation to Age, Disc/facet Degeneration and Segmental Mobility. Kinetic MRI study. Podium presentation at the 2009 Global Spine Congress, AO Spine International, San Francisco, CA.
4. Yoo JH, Taghavi CE, **Keorochana G**, Tzeng ST, Lee KB, Liao JC, Fei Z, Wang JC. Bone Formation Site and the Efficacy of Bone Morphogenetic Protein-2, Bone Marrow Aspirate and Autogenous Bone in Single-Level Transforaminal Lumbar Interbody Fusion. Podium presentation at the 2009 Global Spine Congress, AO Spine International, San Francisco, CA.
5. Taghavi CE, Morishita Y, **Keorochana G**, Lee KB, Tzeng ST, Yoo JH, Fei Z, Wang JC. The Relationship Between Cervical Spinal Diameter and Pathological Changes in the Cervical Spine. Podium presentation at the 2009 Global Spine Congress, AO Spine International, San Francisco, CA
6. Kulachote N, Laohacharoensombat W, Wajanavisit W, **Keorochana G**. Clinical Outcome of Posterior Spinal Fusion with RSS Fixation for Adolescent Idiopathic Scoliosis Curve more than 90 degrees. Oral presentation at The Combined SICOT-RCOST 2009 Annual Meeting, Pattaya, Thailand.
7. **Keorochana G,** Johnson JS, Liao JC, Lee KB, Taghavi CE, Aydopan M, Ngo SS, Wang JC. Dose dependent effect of recombinant human bone morphogenetic protein-2 to retard disc degeneration in the injured rat caudal disc. Oral presentation at North American Spine Society 2010 Annual Meeting, Orlando, FL, USA

8. Liao JC, Tzeng ST, Lee KB, **Keorochana G**, Johnson J, Wang JC. Bone healing of rhBMP-7 is enhanced by combination with BMP binding peptide in a femur defect model. Podium presentation at AAOS 2011 Annual Meeting, San Diego, California, USA

PRESENTATIONS – POSTER

1. Tawonsawatruk T, Laohacharoensombat W, **Keorochana G.** Degenerative Scoliosis, Analysis of Surgical Results. Poster presentation at The Combined Meeting of the 29th Annual Meeting of RCOST/BJD / 10th AFSM 2007.

2. **Keorochana G**, Laohacharoensombat W, Woratanarat P, Chatchaipun P. Predictive factors influencing functional outcome after decompressive laminectomy and instrumented fusion in degenerative lumbar spinal stenosis patients. Poster presentation at The 8th Combined Congress of Spine and Pediatric Orthopaedic Section, APOA, June 2008, Jeju, Korea.
3. Taghavi CE, Lee KB, **Keorochana G**, Yoo JH, Wang JC. Bone Morphogenetic Protein-2 as an Autogenous Bone Graft Substitute in Instrumented Revision Posterolateral Lumbar Spinal Fusion. Poster presentation at the 2009 Global Spine Congress, AO Spine International, San Francisco, CA
4. Taghavi CE, Lee KB, **Keorochana G**, Yoo JH, Wang JC. The Use of Bone Morphogenetic Protein-2 and Bone Marrow Aspirate with Allograft as an Alternative to Iliac Crest Bone Graft in Instrumented Multilevel Posterolateral Lumbar Spinal Fusion. Poster presentation at the 2009 Global Spine Congress, AO Spine International, San Francisco, CA
5. Leelapattana P, **Keorochana G**. Reliability and Validity of Adapted Thai Version of Scoliosis Research Society-22 (SRS-22) Questionnaire. Poster presentation at The Combined SICOT-RCOST 2009 Annual Meeting, Pattaya, Thailand.
6. **Keorochana G**, Taghavi CE, Laohacharoensombat W, Tzeng ST, Lee KB, Wang JC. MRI classification for interspinous ligament degeneration: Intraobserver and interobserver reliability and the frequency of disagreement. Poster presentation at The Combined SICOT-RCOST 2009 Annual Meeting, Pattaya, Thailand.
7. **Keorochana G**, Taghavi CE, Lee KB, Liao JC, Fei Z, Wang JC. Effect Of Sagittal Alignment To Kinematic Changes And Disc Degeneration In The Lumbar Spine. Poster presentation at American Academy of Orthopaedic Surgeons (AAOS) 2010, New Orleans, Louisiana, USA.

8. **Keorochana G.** The novel application of endoscopic medial branches denervation in the treatment of facet joint syndrome. RCOST 2011 Annual Meeting, Pattaya, Thailand.

Anatomic Considerations of Intervertebral disc Perspective in Lumbar Posterolateral Approach via Kambin's Triangle; Cadaveric Study

OBJECTIVE: Anatomic study of Kambin's triangle have been purposed, however the actual perspective of disc boundaries and areas through posterolateral endoscopic approach is not well defined

MATERIALS-METHODS: 96 measurements of areas and dimensions of intervertebral disc(IVD) in Kambin's triangle on bilateral sides of L1-S1 in five fresh human cadavers were studied.

RESULTS: The measurements of parameters of IVD area and Kambin's triangle were revealed in figure1 and table1. The trapezoidal IVD area (mean±SD) for true working space is 63.65±14.70 mm^2 at L1-2, 70.79±21.88 mm^2 at L2-3, 99.03±15.83 mm^2 at L3-4, 116.22±20.93 mm^2 at L4-5 and 92.18±23.63 mm^2 at L5-S1. The average dimension of calculated largest ellipsoidal cannula that can be placed in IVD area is 5.83x11.02 mm at L1-2, 6.97x10.78 mm at L2-3, 9.30x10.67 mm at L3-4, 8.84x13.15 mm at L4-5 and 6.61x14.07 mm at L5-S1.

DISCUSSION: The largest size of cannula for endoscope is limited by the parameters in our study: upper disc distance, disc height and base of the triangle. The use of circular cannula may not suitable especially for more advance endoscopic procedures such as interbody cage fusion or nucleus replacement. The thought of special design such as oval, rectangular or trapezoidal shape insertion could be developed. Also the expandable type of insertion should be considered.

CONCLUSION: The trapezoidal perspective of working zone of IVD in Kambin's triangle is important and limited. This should be taken into consideration when developing the tools and instruments for posterolateral endoscopic lumbar spine surgery.

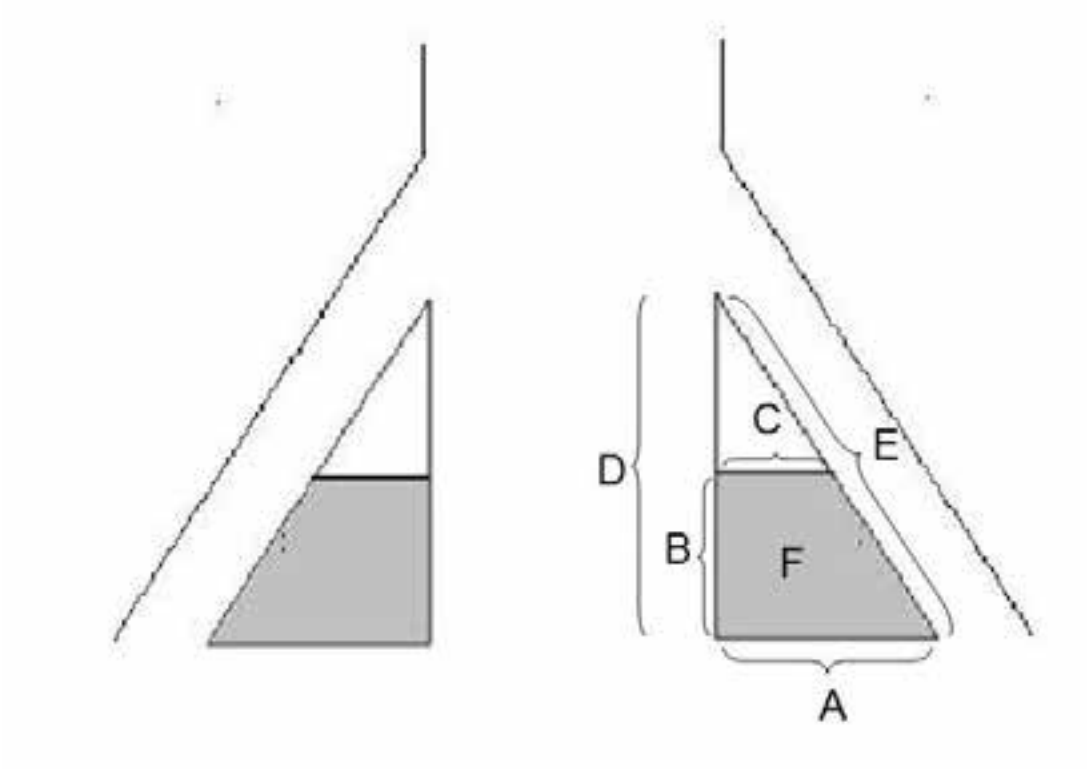

Figure1. Schematic diagram of the parameters of IVD area and Kambin's triangle: A.Base of triangle, B.Disc height, C. Upper disc distance, D. Dural height,

E. Nerve root length, F. Trapezoidal IVD area

Level	Base of triangle (mm.) (Mean±SD)	Dural height (mm.) (Mean±SD)	Nerve root length (mm.) (Mean±SD)	Disc height (mm.) (Mean±SD)	Upper disc distance (mm.) (Mean±SD)	Trapezoidal area (mm^2)
L1-2	12.42±2.66	16.14±4.68	20.25±4.91	5.83±1.04	9.62±2.50	63.65±14.70
L2-3	12.04±2.38	16.4±4.42	20.43±4.39	6.97±2.54	9.53±3.16	70.79±21.88
L3-4	12.47±1.77	18.54±5.52	22.89±5.22	9.3±1.24	8.85±1.45	99.03±15.83
L4-5	15.16±2.06	20.19±5.04	25.19±4.29	8.89±1.75	11.13±1.34	116.22±20.93

L5-S1	16.12±2.28	18.63±3.32	23.58±5.49	6.61±1.58	12.01±1.54	92.18±23.63

Table1Mean values of the parameters of IVD area and Kambin's triangle at each level

0115

Burkay Kacira

Title of abstract:

- Anatomical and Surgical Landmarks

0116

Halil Algan

Title of abstract:

- Neurovascular relations and clinical anatomy of the lumbar spine

0117

Cavit Meclisi

ÖZGEÇMİŞ VE ESERLER LİSTESİ

ÖZGEÇMİŞ

Adı Soyadı: CAVİT MECLİSİ

Doğum Tarihi: 10 Şubat 1965

Öğrenim Durumu: TIPTA UZMANLIK

Derece	Bölüm/Program	Üniversite	Yıl
Lisans	Tıp	Cerrahpaşa Tıp Fakültesi	1989
Doktora/S.Yeterlik/ Tıpta Uzmanlık	Fiziksel Tıp ve Rehabilitasyon	Cerrahpaşa Tıp Fakültesi	1995

Doktora Tezi/S.Yeterlik Çalışması/Tıpta Uzmanlık Tezi Başlığı (özeti ekte) ve Danışman(lar)ı : OSTEOPOROTİK KALÇA KIRIĞI HASTALARINDA OSTEOARTROZ PREVALANSI (Prof. Dr. Merih Eryavuz Sarıdoğan)

Görevler:

Görev Unvanı	Görev Yeri	Yıl
Uzmanlık Öğrencisi	Cerrahpaşa Tıp Fakültesi - Fiziksel Tıp ve Rehabilitasyon Anabilim Dalı - İstanbul	1990 - 1995
FTR Uzmanı	İstanbul Hospital, İstanbul	1995 - 2000
FTR Uzmanı	Ziraat Bankası Polikliniği, Küçükçekmece Kızılay Tıp Merkezi	2000 - 2004

FTR Uzmanı	Muayenehane – FTR Merkezi	2004 - 2006
FTR Uzmanı	Avcılar Vatan Fizik Tedavi ve Rehabilitasyon Hastanesi	2006 - 2008
FTR Uzmanı	Medicana Inernational İstanbul Hastanesi, İstanbul	2008 – 2001
FTR Uzmanı Spor ve Egzersiz Hekimi	Özel Kas-İskelet ve Spor Hekimliği Kliniği	2010 -

Projelerde Yaptığı Görevler :

Diyagnostik gruplara yönelik klinik egzersiz uygulamasını özel fizik tedavi ve rehabilitasyon kliniğinde hayat geçirmek, 2005

Avcılar Vatan Fizik Tedavi ve Rehabilitasyon Hastanesinin ağır işlevsel kaybı olan hastaların hospitalizasyonu için ekip liderliği ve başhekimlik, 2007-2008

Medicana International Istanbul Hastanesi fizik tedavi ve rehabilitasyon departmanının ağrı ve omurga tedavisi, yatarak rehabilitasyon, kardiyak ve pulmoner rehabilitasyon programlarının oluşturulması ve bu konularda fizyoterapist, hemşire ve hasta eğitimi, 2008-2011

İdari Görevler :

Avcılar Vatan Fizik Tedavi ve Rehabilitasyon Hastanesi Başhekimliği, 2007-2008

Eğitim Görevleri:

2014- Aydın Üniversitesi Sağlık Meslek Yüksek Okulları,

Sertifikalar:

2005 European Board of Physical Medicine and Rehabilitation

2009 IELTS, Academic Module, score 7

2009 American College of Sports Medicine Personal Trainer

2009 American College of Sports Medicine Health Fitness Specialist

2012 Sports and Exercise Medicine, Postgraduate Diploma, University of Bath, İngiltere

Mezuniyet Sonrası Eğitim:

2004 - ***American Academy of Physical Medicine & Rehabilitation Continuing Medical Education ve Maintenance Of Certification kriterlerine uygun zorunlu on-line eğitimler***

2011 ***Muskuloskeletal Ultrasound, American Academy of Physical Medicine & Rehabilitation***

2010 – 2012 ***Sports & Exercise Medicine, Postgraduate Diploma, University of Bath, İngiltere***

2014 - ***Sports & Exercise Medicine, MSc, University of Bath, İngiltere***

Bilimsel Kuruluşlara Üyelikler :

2012 ***Türk Spor Bilimleri Derneği***

2012 ***European College of Sports & Exercise Physicians***

2007 ***British Association of Sports & Exercise Medicine***

2006 ***American College of Sports Medicine***

2004 European Board of Physical and Rehabilitation Medicine

2004 International Myopain Society

2003 International Society of Physical and Rehabilitation Medicine

2003 American Academy of Physical Medicine and Rehabilitation

1991 Türkiye Fiziksel Tıp ve Rehabilitasyon Derneği

1989 Türk Tabipleri Birliği

ESERLER

A. <u>Uluslararası hakemli dergilerde yayımlanan makaleler :</u>

A1. Javid Majlesi MD, Halil Ünalan MD, "High Power Pain Threshold Ultrasound Technique in the Treatment of Active Myofascial Trigger Points: A Randomized, Double-Blind, Case-Control Study", *Archives of Physical Medicine and Rehabilitation, Vol 85, 833-836 (2004)*.

A2. Halil Ünalan, **Javid Majlesi**, "High Power Pain Threshold Ultrasound Technique in the Treatment of Active Trigger Points", Research Ideas, *Journal of Musculoskeletal Pain*, Vol. 13(3)**,** 71-72 (2005).

A3. Javid Majlesi, Halil Ünalan, "Myofascial pain Syndrome: Efficacy of Different Therapies", Letter to the Editor, *Journal of Back and Musculoskeletal Rehabilitation, 20,* (2007).

A4. **Javid Majlesi**, Halit Togay, Halil Ünalan, Sadık Toprak "The Sensitivity and Specificity of the Slump and the Straight Leg Raising Tests in Patients with Lumbar Disk Herniation", *Journal of Clinical Rheumatology*, Vol 14, No 2, 87-91 (2008).

A5. Halil Ünalan, Murat Uludağ, Müfit Akyüz, Belgin Erhan, Şafak Sahir Karamehmetoğlu, Ahmet Dinç, **Javid Majlesi,** Deniz Palamar, Şükrü Gündüz "ASIA-A Patients with Partial Preservation versus Partial Recovery, Dynamic Grading", *Neurosurgery Quarterly*, Vol 18, No 4, 273-276 (2008).

A6. Cengiz Bahadır, **Javid Majlesi,** Halil Ünalan, "The Effect of High Power Pain Threshold Ultrasound Therapy on the Electrical Activity of Trigger Points and Local Twitch Response on Electromyography: A Preliminary Study", *Journal of Musculoskeletal Pain* (2009).

A7. Halil Ünalan, Hilal Sever, **Javid Majlesi,** Pınar Işıkçı, Cengiz Bahadır, "Intraosseous Lipoma of the Illium: Case Report" *Trakya Univ Tıp Fak Derg* 2009;26(2):182-185

A8. Javid Majlesi, Halil Üanalan. Effect of Treatment on Trigger Points. Invited Review. Current Pain and Headcache Reports (2010); 14:353-360.

A9. Seçil Yalgın, Halil Ünalan, Serdar Öztezcan, **Javid Majlesi,** Ferda Özkan, Ülkü Akarırmak. "Experimental Study on Static Ultrasound (High-Power Pain Threshold Ultrasound) Application: Potential Adverse Effects on Rats". 2010; Journal of Musculoskeletal Pain, Vol 18(3).

A10. Javid Majlesi, Deniz Mataracı Çevik, Nurdan Mengi, Kaya Kanberoğlu, Meryem Kaya, Hülya Bingöl, Levent Alimgil, Halil Ünalan, Hüseyin Botanlıoğlu,. "Wilson Disease Presented with Severe Low Back Pain and Involuntary Movements: A Case Reoprt." 2010; Turkish Journal of Physical Medicine and Rehabilitaiton. 56:141-4.

A11. Halil Ünalan, **Javid Majlesi,** Filiz Aydın, Deniz Palamar. "Comparison of High-power Pain Threshold Ultrasound Therapy with Local Injection in the Treatment of Active Myofascial Trigger Points of the Upper Trapezius Muscle". Archives of Physical Medicine and Rehabilitation. 2011, April, Vol 92.

A12. Müfit Akyüz, Halil Ünalan, Deniz Palamar, Alev Demirdalı, Ayşe Kutlu,

Tuğçe Özekli Mısırlıoğlu, Pınar Işıkçı, **Javid Majlesi**, and Ülkü Akarırmak. "Correlation of Upper Extremity Function to Quality of Life of Primary Caregivers of Ambulatory Stroke Survivors Living in the Community". *Neurosurgery Quaterly. 2014 yılı için basımı bekliyor.*

B. <u>Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında (*Proceedings*) basılan bildiriler :</u>

B1. **Javid Majlesi**, H Ünalan, "Comparison of the Rate of the Positivity and Negativity of the Slump and the SLR Tests", 5th European Congress of Physical and Rehebilitation Medicine, Turkey, 2004.

B2. Halil Ünalan, **Javid Majlesi**, Filiz Yıldız Aydın, Deniz Palamar, Merih Eryzvuz, "High Power Pain Threshold Ultrasound Therapy is as Effevtive as Local Injection in the Treatment of Active Myofascial Trigger Points" *European Congress of Pain*, İstanbul, 2006.

B3. Cengiz Bahadır, **Javid Majlesi,** Halil Ünalan, "The Effect of High Power Pain Threshold Ultrasound Therapy on the Electrical Activity of Trigger Points and Local Twitch Response on Electromyography: A Preliminary Study" *European Congress of Pain*, İstanbul, 2006.

B4. **Javid Majlesi**, A Karasu, C Kılınçer, H Ünalan, "Lomber Disk Hernisinde Düz Bacak Germe ve Slump Testlerinin Yanısal Değerlerinin Karşılaştırılması", Türk Nöroşirurji Derneği, XXI. Bilimsel Kongresi, Antalya, Türkiye, 2007.

B5. H Ünalan, T Özekli Mısırlıoğlu, B Erhan, M Akyüz, B Gündüz, E Irgi, H Arslan, A Baltacı, S Aslan, D Palamar, A Kutlu, **Javid Majlesi**, Ü Akarırmak, SS Karamehmetoğlu. "Validity and Reliability Study of Turkish Version of Spinal Cord Independence Measure-III". 51st ISCOS Annual Scientific Meeting, September 3 – 5, 2012, London, UK.

B6. Javid Majlesi. "Are Pre-Operative and Post-Operative Spinal Rehabilitative Interventions Advantageous in Minimal Invasive Spine Surgey?" 5th TURKMISS/6th ISMISS Turkey. 2013.

Title of abstract:

- The advantages of pre-operative and post-operative rehabilitative interventions in minimal invasive spine surgery

0118

Ibrahim Yegül

Title of abstract:

- Do herniated disks cause pain?

0119

Ismail Gokyar

Title of abstract:

- The Map Of Back Pain

0120

Zhen Wanxin

Title of abstract:

- Clinical evaluation of early diagnosis and treatment of vertebral metastases with combined biopsy and percutaueous kyphoplasty (PKP)

0121

Mohammad Ebrahim Taherian

Date of birth: 09/01/1961 Tehran -Iran

Graduated from Shahid Beheshti University -Tehran- Iran general physician

Graduated from shahid Beheshti university – Tehran- Iran orthopedic surgery

More than 6 years experience in endoscopic disc surgery

More than 200 operation in the field of endoscopic disc surgery

Supplementary educational period in Germany –Spain –Iran for endoscopy disc surgery

Practice in Noor Clinic- Payambaran hospital- Pars hospital - Tehran – Iran

1-poster presentation of sacroplasty in Iranian orthopedic congress in 2008

2-prsentation of musculoskeletal disorder in dentistry in 10th congressof Iranian academy of restorative dentistry in 2011.

3-poster presentation of epiduroscopy in Iranian orthopedic congress in 2011

4-poster presentation of effect negative pressure dressing in massive soft tissue trauma in Iranian orthopedic congress in 2011

5-presentation of full endoscopic disc surgery in 120 case in Iranian orthopedic congress in 2012.

Title of abstract:

- Endoscopic approach for recurrence open disc surgery

012

Dirk Andreas Brücher

Name	Dr. med. Dirk Brücher	
Date of birth	January 21, 1961	
Place of birth	Köln, Germany	
Parents	Dr. med. Dieter Brücher	
	Renate , von Lieres und Wilkau	
School	Grammar school Germersheim High School	
	High School Degree June 13, 1979	
Military Service	August, 1979 – August, 1980	
Study	General medicine:	TU München
		Ruhr-Universität Bochum
	Graduation:	1987
	Final grade:	good

December 1987 -	Residency at Airforce Division
November 1988	2.Lw.Div./headquarters Birkenfeld

Residency:	Städtisches Klinikum Karlsruhe
	Akademisches Lehrkrankenhaus d. Universität Freiburg/Breisgau
	76133 Karlsruhe / Germany

since 01.01.1989	General Surgery Abdom./Thorax.-/Traumasurgery
1995	Degree for General Surgery
1997	Degree for Trauma- and Plastic Surgery
since 1997	Staff surgeon for Trauma- and Plastic Surgery
	Director: Prof. Dr. Ulrich Pfister
	Chief staff surgeon for spine surgery
	Spine Surgeon (DWG)
Guest Docent :	Ludmilloff University Moskau

Memberships :	German Society for General Surgery (DGC)
	German Society for Trauma Surgery (DGU)
	AO Spine Europe
	Group Spine DGU
	Eurospine Germany
	German Society of Spine (DWG)

<u>Publications, lectures:</u>

June 1994	35.Tagung „Österreichische Gesellschaft für Chirurgie“,

Salzburg / Österreich:

- Endoscopic subtotal resection of Pancreas
- Intraoperative Sonography of liver - routinemäßige Anwendung bei GI – Carcinomen (n=151) sinnvoll?

1994 Congress of the Association International Vascular Surgery(AIVS),

Baquera – Berreit / Spain:

- Thoracic endoscopic sympathectomy (TES) – a definitive standardized procedure in vascular surgery ?

1995 Der Chirurg, Band 66 : 142 – 145

- Extraanatomic iliaco –crural bypass , crossed through a borehole of the the iliac fossa in cases of inguinal and paragenual wound infections

1998 Book „Akrale Durchblutungstörungen“

K.Amendt / C.Diehm(Hrsg.), JAB-Verlag

- Thorakale Sympathektomie – endoskopisch vs. offene Technik

1996 Jubiläums-Symosium Prof.Dr.U.Holz , Stuttgart / Germany

- Osteo – ligamentäre Transplantat zur Rekonstruktion des Rotatorenmanschettendefektes – erste vorläufige klinische Ergebnisse bei 16 Patienten kontrolliert im MRI postoperativ.

Febr. 2004 European congress of radiology, Vienna / Austria

- Balloon – assisted vertebroplasty – new technique

Febr. 2005 Backup, Springerverlag

- Posterior concept in thoraco-lumbar fractures of spine,

2005 RoeFo

- Ballon - assistierte perkutane Vertebroplastie bei Patienten mit osteoporotischen Wirbelsäulenfrakturen – erste Ergebnisse

5/2007 SAS 7 Berlin/Germany

Initial Results of Total Disc Replacement with Activ.L Prothesis:

A Prospective Study with a Follow Up of one Year

2008 SAS 8 Miami/USA

2012 DWG Hamburg/Germany HTLEA T1-T5:A new approach to T1-T5

Guestspeaker :

25.Kongress der „Gesellschaft für Neurochirurgie“ in Gioania ,Brasilien, Sept.2004 :

Vorträge: posteriorer Standard der WS-Chrurgie bei thorako-lumbalen Frakturen

Endoskopische Techniken bei thorako – lumbalen fx

Endokopisches Konzept der Frakturversorgung thorako – lumbal

anterior approach in spine surgery related to anatomy and fx-location

Jahreskongress der “Gesellschaft für Neurochirurgie” in Kfar Blum , ISRAEL,Febr.2005:

endoscopic management of thoraco – lumbar fractures in spine

endoscopic approach in upper and middle thoracic spine

III.Kongress der “Gesellschaft für Orthopädie“ reunio pathologicas de coluna vertebral ,

Sao Paulo , BRASILIEN,31.03 -02.04.2005

Spinal endoscopy & innovations in anterior spine surgery , “Association for Orthopedric Surgeons and Neurosurgeons of Iran” ,Tehran ,IRAN, 16.06-17.06.2005

7.th Annual Congress of Spine and Spinal Chord Injury of China

11/2005 ,Chongjing / China

4 year Results Endoscopic Fusion of Thoraco-lumbar Fractures

1st Congress of International WEN-Miss:London 1.2008:ESS and TL-fractures,Limits of endoscopic surgery thoraco-lumbar with anterior plating

10th Congress of minimal-invasive surgery to spine,6/2008 Dresden,Germany

2nd International Middle-East Congress,2/2009,Kish Island,Iran

2nd International Congress of WEN-Miss,Malaysia, 4/2009

2nd Spine Masters Royal College Symposium, 5/2009 ,London,UK

Neurosurgical Congress Curitibia/Brasil 2009

Trauma Update Karlsruhe 11/2009

Spine Congress Chiangmei/Thailand 1/2010

1.Endoscopic Course , Moskau/Russia 2/2010

ISSAS Las Vegas/USA 2011

WFNS Seoul/Korea 9/2013

Video-Transmitted spine operations

Rio De Janeiro/Brazil

Genf/Suisse

Buenos Aires/Argentina

Curitibia/Brazil

Tel Aviv/Israel

Paris/France

Nice/France

Sao Paulo/Brazil

Bangkok/Thailand

Moskau/Russia

Kuala Lumpur/Malaysia

Spine-surgery :

- One of the endoscopic pioneers in spine surgery with osteosynthesis to anterior spine:
  First case with ventrofix and VBR-cage 1997
- 1st endoscopic Pioneer for anterior decompression of TL-spine 1997
- Member of the primary user-group of Dr.Beisse/Potulski
- Hospitation-center for minimal-invasive spine surgery to Aesculap & Braun since 2001

- "Intralay Technique of graft" with strut graft in combination with Macs-TL 2001
- Annual concomitant course – chairman in Endoscopic spinal surgery –international course, IRCAD , Straßburg,France since 2001
- Primary user of Activ.L since 2004 with Dr. Sola and Tschecheslowakia
- Development of the Retractor-System Activ.O
- Development of the new " L4-S1 Endplate " of Activ.L 2005 (Non-USA Version)
- Hospitation Center for ESS w.MACS/TDR with Activ.L Prothesis since 2004
- Consultant for spine surgery to Aesculap & Braun since 2006
- Highest endoscopic and longest endoscopic Performance of anterior Plating to thoracic spine worldwide
- Highest level of anterior endoscopic performance to spine

Instruments Spine Development:

- New Rongeurs NC-line 2005
- Motorized disc shaver (1999)
- Motorized cartilage cutter "
- Motorized burr "
- Endoscopic part of Microspeed Uni Long Line XXL
- Diamant burr posterior rim HL

Systems Spine Development:

- Activ.O Frame
- New L4-S1 Plate Activ.L
- New Offset of lumbar TDA
- Hydrolift:Hydraulic Applicator,Rescue forceps

Last oral Publications:

- 2011 ISSAS in Las Vegas/USA:
  -Transaxillary endoscopic approach to upper thoracic spine T1-T5:A New Approach

  -3 Year Follow-up with TDR Aktiv.L as 2 Center Study(Tchechia)

Last Poster Publications:

- Dec.2012 DWG Hamburg/Germany:
  Hohe Transaxilläre Endoskopische anteriore Zugang T1-T5

Title of abstract :

- Anterior Endoscopic Fusion of T1-T5: Review of approaches and the new”H tA E A” as a lateral approach by author
- Anterior Endoscopic Thoracic Decompression (AETD) and Anterior Endoscopic Lumbar Decompression (AELD) in TL-Spine

0123

Burak Kazanci

Title of abstract :

- Learning curve of full-endoscopic lumbar discectomy :

Abstract

Purpose To report the learning curve of full-endoscopic lumbar discectomy for a surgeon naive to endoscopic surgery but trained in open microdiscectomy.
Methods From May 2013 to September 2013, 7 patients under- went full-endoscopic lumbar discectomy and 9 underwent open microdiscectomy. The clinical results were evaluated with a visual analog scale (VAS) and the Oswestry Disability Index (ODI). Spearman's coefficient of rank correlation (rho) was used to assess the learning curves for the trans- foraminal and interlaminar procedures of full-endoscopic lumbar discectomy.

Results After full-endoscopic lumbar discectomy, the VAS and ODI results of the patients followed up were comparable with those of open microdiscectomy. A steep learning curve was observed for the transforaminal proce- dure, but not the interlaminar procedure.

Conclusions The learning curve of the transforaminal approach was steep and easy to learn, while the learning curve of the interlaminar approach was flat and hard to master.

0124

Ernani Abreu

Title of abstract :

- Tips, Compications and Pitfalls of Vertebraplasty
- Percutaneous Endoscopic Foraminal Versus Interlaminar Approach

0125

Taylan Akkaya

Title of abstract :

- Ultrasound Guided Sacroiliac Pain Interventions

0126

Murat Bezer

Title of abstract :

- Transforaminal Endoscopic Discectomy

0127

Oguz Karaeminogullari

Title of abstract :

- Kyphoplasty for Treatment of Osteoporotic Vertebral Fractures

0128

Mohammad Alfawareh

NAME: Mohammad D. Alfawareh, MD **DATE:** January 10th 2014

PRESENT POSITION AND ADDRESS:

Consultant Orthopedic Spine Surgery & Scoliosis,

Musculoskeletal Oncology,

Pediatric Orthopedics,

Spine Surgery Division,

National Neuroscience Center,

King Fahad Medical City,

Assistant Professor,

King Saud University for Health Science

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SPECIAL INTREST

Complex spine surgery.

Occipto-cervical junction

Deformity and scoliosis

Pediatric and adults deformity

Musculoskeletal & spine tumors

BOARDS & CERTIFICATIONS:

-Musculoskeletal Oncology Fellowship Certificate, UTMDACC, Houston, TX (August 2009)
-Pediatric Orthopedic Fellowship Certificate, UC & CCHMC, Cincinnati, OH (August 2008)
-Spine Surgery Fellowship Certificate, UTMB, TX USA (August 2007)
-Jordanian Board of Orthopedics, Jordan Medical Council Certificate for Orthopedics Part Two, certified by The Jordanian Medical Council, Amman, Jordan

(Sep, 13th, 2004).

- Board Eligible Certificate, Ministry Of Health, following completion of residency

(Dec, 31st, 2003).

- Jordanian Board of Orthopedics, Jordan Medical Council Certificate for Orthopedics

Part One, certified by The Jordanian Medical Council, Amman, Jordan (February 20,

2001)

- ECFMG Certificate, Issued by ECFMG, Philadelphia, PA (Feb, 26th, 1998).

- USMLE: Step I, United States Medical licensing Exam, Issued by ECFMG,

Philadelphia, PA (June 11, 1997).

- USMLE: step II, United States Medical licensing Exam, Issued by ECFMG, Philadelphia, PA (March, 5th, 1997).

BIOGRAPHICAL:

Born:	May 15, 1971
Birthplace:	Azzatariy, Mafraq, Jordan
Citizenship:	Jordan
Address:	P. O. Box 365386
	Riyadh, SA 11393
Married:	F Alfawareh
Children:	five
E-mail:	malfawareh@kfmc.med.sa
	alfawarehm@yahoo.com

EDUCATION:

A. Medical and Pre-medical Education

June 1995	Medical Degree (MBBS)
	Jordan University Medical School
	Amman, Jordan. www.ju.edu.jo
July 1989	High School Diploma, scientific branch Mafraq Secondary School
	Mafraq, Jordan, www.moe.gov.jo

B. Post-MD Graduate Training

August 2008-	Musculoskeletal Oncology Fellow
July 2009	Department Orthopaedic Oncology

The University of Texas MD Anderson Cancer Center

Houston, Texas, www.mdacc.org

August 2007– Pediatric Orthopedics Fellowship

July 2008 Division of Pediatric Orthopaedic Surgery Cincinnati Children Hospital Medical Center,

Cincinnati, Ohio, www.cchmc.org

August 2006 – Spine Fellowship

July 2007 Division of Spine Surgery

Department of Orthopaedic Surgery and Rehabilitation

University of Texas Medical Branch

Galveston, Texas, www.utmb.edu

February 2006 – Research fellowship

August 2006 Division of Spine Surgery

Department of Orthopaedic Surgery and Rehabilitation

University of Texas Medical Branch

Galveston, Texas, www.utmb.edu

January 2004 – Orthopaedic Fellowship

August 2004 Princess Basma Teaching Hospital

Affiliate, Jordan University of Science

And Technology

Irbid, Jordan, www.jmc.gov.jo

January 2000 –	Orthopaedic Residency
December 2003	Princess Basma Teaching Hospital
	Affiliate, Jordan University of Science and Technology
	Irbid, Jordan, www.jmc.gov.jo

January 1999 –	Orthopaedic Residency
December 1999	Albasheer General Hospital, Ashrafia
	Amman, Jordan, www.jmc.gov.jo

December 1997 –	ER Resident
January 1999	Mafraq General Hospital
	Mafraq, Jordan, www.moh.gov.jo

July 1995 –	Intern
June 1996	Mafraq General Hospital
	Mafraq, Jordan, www.moh.gov.jo

PROFESSIONAL WORK HISTORY:

August 2004 –	Attending Orthopaedic Surgeon
February 2006	Mafraq General Hospital
	Mafraq, Jordan, www.moh.gov.jo

July 1996 –	General Practitioner

November 1996 Jordan University Hospital

Amman, Jordan, www.moh.gov.jo

MEMBERSHIP IN SCIENTIFIC SOCIETIES:

- IGASS, member since October 2013.
- ACMISST, Asian Congress of Minimal Spine Surgery Techniques, www.acmisst.org.
- Saudi Arabian Orthopedic Society
- AO Spine North America.
- Jordanian Orthopaedic Society/Association for Orthopaedic
- Surgeons
- Jordan Medical Association, permanent member since 1996.
- Alrabieh Voluntary Society, a non-profit organization for improving the lives of the poor and underprivileged
- Jordanian Union for Sports Medicine

MEDICAL LICENSURE:

- September 30 2010 Saudi Arabia #10-R-M-0332815 current

- August 11 2007 Texas #10026941 Expired (08-10-2009)

- August 13, 2007 Ohio #57-012793 Expired (08/12/2008)

- August 14, 2006 Texas #10026941 Expired (08-13-07)

- July 16, 1996 Jordan #10152 Permanent

BOOK CONTRIBUTION:

- Neurosurgery Tricks of the Trade, under editing, Remi Neder, Thieme.
- Neurosurgery Rounds, Questions and Answers, Mark Shaya and Remi Neder, Thieme, 2011.

RESEARCH EXPERIENCES:

- Foot round cell liposarcoma, case report, poster presentation, Muscoloskeletal Tumor Society Annual Meeting, October 3-5 2013, San Francisco USA. www.msts.org
- Minimally Invasive Spine Surgery Personal Experience, oral presentation, ISMISS Turkey, April 11-14 2013, Cesme Izmir Turkey, www.ismissturkey.org.
- Brown Tumor of the Cervical Spines, oral presentation, global spine conference, April 4-6 20133, Hong Kong, www.globalspinecongress.org.
- Axis (C2) Tumor Case Series and Review of Literature, poster presentation, global spine conference, April 4-6 20133, Hong Kong, www.globalspinecongress.org.

- Minimal Invasive Spine Surgery at Thoracolumbar Spine surgery, oral presentation, Third Neurosurgical Update Conference, Feb11-13 2013, Park Hyatt Hotel, Jeddah KSA.
- Congenital Scoliosis Riyadh Experience, Poster Presentation, at IRSSD meeting 2012, Poznan Poland, June 1st-4th 2012, www.irssd2012.pl.
- safty of MI pedicle screws at Thoracolumbar Spine, 13th Dubai Spine Confeence, Dubai, 1st- 3ed 5 2012, www.dubaispineconference.com.
- Minimally Invasive Pedicle Screw Placement at Thoracolumbar Spine, Are They Safe? Oral presentation, ISMISS, Antalya, Turkey, April 5th-8th 2012, www.ismissturkey.org.
- Congenital Scoliosis, Riyadh Experience, oral presentation, First Middle East Spine Meeting, Istanbul, Turkey, December 7-9 2011, http://mespine2011.org.
- Guide wire breakage: An Unusual Complication of Anterior Odontoid Cannulated Screw Fixation, Asian Spine Journal, December 2011, ID: ASJ-10-050, http://www.ncbi.nlm.nih.gov/pubmed/22164322.
- Minimal Invasive Pedicle Screw Placement at Thoracolumbar Spine Are They Save? E poster, SMISS 2011 annual meeting, October 21023 2011, Las Vegas, Nevada, USA.
- Sixty Percent 10-years Survival of Patients with Chondrosarcoma after Local Recurrence, Clinical Orthopedics and Related Research, September 15th 2011, http://www.ncbi.nlm.nih.gov/pubmed/21918803.
- Congenital Scoliosis Riyadh experience, Poster Presentation, International Conference of Early Onset Scoliosis (ICEOS), Nov 18th -19th 2011, Orlando FL USA.
- Minimal Invasive Spine Surgery State of Art, oral presentation, Towards Saver Neurosurgery Symposium, May 24-26 2011, Riyadh, SA, Brown Tumor of the Cervical Spine, oral presentation, Second Charitee Spine Tumor Days, May 20-21 2011, Berlin, Germany, www.spine-tumor.com.
- Accuracy of Minimally Invasive Pedicle Screw Placement at Thoracolumbar Spine, oral presentation, ACMISST, May 5-7 2011, Shanghai, China, www.ACMISST.org.
- Problems with the Use of the O-Arm and Neuronavigation in theManagement of Complex Spine Surgery Cases, oral presentation, ACMISST, May 5-7 2011, Shanghai, China, www.ACMISST.org.
- Minimally Invasive Spine Surgery, Riyadh Experience, oral presentation, ACMISST, May 5-7 2011, Shanghai, China, www.ACMISST.org.
- Role Of The O-arm And Neuronavigation In Safe Screws Fixation In Children With Traumatic Rotatory Atlantoaxial Sublaxation., e poster, presented at SMISS Annual Meeting 2010, Miami, FL USA, http://www.smiss2010.org/
- Long Term Follow up after Local Recurrence of Chondrosarcoma, oral presentation, MSTS 2010 Annual Meeting, Philadelphia PA, USA, http://msts.org/.
- Assessment of Costoplasty Effect in Rib Hump Correction in AIS Using Rib Index (RI), manuscript was submitted to Spine Journal.
- Assessment of Costoplasty Effect in Rib Hump Correction in AIS Using Rib Index (RI) was presented as oral presentation at AAOS 2009 annual meeting, Las Vegas, Nevada, USA.
- Double Rib Contour Sign, electronic poster presentation, IMAST meeting Hong Kong, 2008.
- Comparison of the Rib Hump Deformity Correction in Adolescent Idiopathic Scoliosis With or Without Costoplasty using the Double Rib Contour Sign, podium

presentation, 23rd annual hip day conference, first comprehensive spine conference, 10th bi-annual fellow's reunion, April 17-18th, 2008, CCHMC, Cincinnati, OH, USA.
- Prevalence of Wrong Level Surgery among Spine Surgeon, Spine, 2008 Jan. 15:33(2): 194-8, http://www.ncbi.nlm.nih.gov/pubmed/18197106.
- Meta-analysis of Thoracolumbar fracture, poster presentation, Western Orthopedics Association Meeting, July, 2007, Coronado, California.
- Meta-analysis of Thoracolumbar Fracture, poster presentation, Texas Orthopedics Association Meeting, May, 2007.
- Research fellow, February 23ed 2006 – August 13th2006, UTMB, Galveston, TX.
- Research projects: thoracolumbar burst fracture meta-analysis, cervical myelopathy, and simulation of cervical spine ligamentous structure in computer model.

PRESENTATIONS:

- Osteoporosis in Saudi Females, Lecture at King Saud University, Girls Section, Riyadh, April 17th 2012.
- Open Microdisectomy Debate versus MIS Discectomy, oral presentation, Spine Update Symposium, Dec 13th through 15th 2011, King Saud University, Riyadh KSA.
- Brown Tumor of the Cervical Spine, podium presentation, Second Saudi Stereotactic Radio-Surgery Symposium (SSRSS), April 26th 2011, Jeddah, SA
- KFMC spine experience with intraoperative monitoring, podium presentation, First Saudi International Conference on Extensive Intraoperative Neurophysiology April 19-20 2011, KFMC, Riyadh, SA
- Scoliosis in neuromuscular diseases, podium presentation at Second Saudi International Pediatric Neurology Conference, 1-3 November, 2010, KFMC Riyadh, SA, http://www.sipnc.org/index.html.
- Scoliosis Review, a lecture presented at Riyadh Neuroscience Club Meeting, 15th June 2010, Riyadh, SA, http://www.riyadhneuroscienceclub.com/.
- Adolescent Idiopathic Scoliosis, CME presentation at KFMC, Riyadh, KSA, audience KFMC Faculty, residents and medical Students.
- Benign Soft tissue Tumors. a presentation at UT at Houston Medical School, a lecture to Orthopedic residents .
- Benign Soft tissue Tumors. Podium presentation at UTMDACC Orthopedic Pathology Course, October 25th 2008, Houston, TX, USA.
- Scoliosis, presentation at CCHMC, June 2nd 2008, audience UC medical School and residents, Cincinnati, OH, USA.
- Flexible Flat Foot, presentation at CCHMC, April 20th 2008, audience UC medical School and residents, Cincinnati, OH, USA.
- Idiopathic Club Foot, presentation at CCHMC, October 11th 2007, audience UC medical School and residents, Cincinnati, OH, USA.

WORKSHOPS AND CONFERENCES ATTENDED:

- AAOS Annual meeting, Las Vegas, USA (Feb, 24-28,2009)
- MSTA Specialty day, Las Vegas, USA (Feb 28th , 2009)
- Benign Soft tissue Tumors. Podium presentation at UTAACC Orthopedic Pathology Course, October 25th 2008, Houston, TX, USA.
- Arthrex Arthroscopy Course for Fellows, Naples, FL, USA (May 9th, 2008).
- Twenty third annual hip day conference, first comprehensive spine conference, 10th bi-annual fellow's reunion, CCHMC, Cincinnati, OH, USA (April 17-18th, 2008).
- Spinal Deformity Summit, Miami, FL, USA (April 11-12, 2008).
- Neurofibromatosis Conference, CCHMC, Cincinnati, OH, USA (March 29th 2008).
- The Challenges and Rewards of Investigator Initiated Trails, CCHMC, Cincinnati, Oh, USA (March 17th, 2008).
- Spine Surgeon Transition Program, Memphis, TN, USA (March 13-15th, 2008).
- The 75th annual meeting of AAOS, San Francisco, CA, USA (March 5-9, 2008,).
- POSNA Specially day, San Francisco, CA, USA (March 8th, 2008).
- The SpineVision Training Course on PediGuard, CCHMC, Cincinnati, OH, USA (December 12th, 2007).
- Spine Deformity Tutorial, San Diego, CA, (November 1-2-2007).
- AO Spine North America Spine Deformity Symposium, Coronado, CA, (June 2-3, 2007).
- Trabecular Metal Workshop, Parsippany, NJ, USA (May 18, 2007).
- Texas Orthopedic Association Annual Meeting, Austin, Texas, USA (May 11-12, 2007).
- MERC Comprehensive Spine Review for Residents and fellows, White Sulphur Springs, WV, USA (May 11-12, 2007).
- The 35th Annual Shrines Pediatric Orthopedic Lectureship, Shrines Hospital for Children, Houston, TX, USA (April 20, 2007).
- AO Spine North America principles and Treatment of Spinal Disorders for Residents and Fellows, Atlanta, GA, USA (March 9-11, 2007).
- Balloon Kyphoplasty, Memphis, TN, USA (September 21 – 23, 2006).
- Dynesys Dynamic Stabilization Workshop, University of Texas Health Science Center, San Antonio, TX, USA (May 13, 2006).
- Hands-on spine surgery review course, Johns Hopkins Medical Institution, Baltimore, ML, USA (May 5 – 6, 2006).

- Synthes LCP-Symposium with workshop, Amman, Jordan (March 18, 2005).
- The 9th Conference of Pan Arab Orthopedics Society in association with the
- Pan Arabic Spine Society, Amman, Jordan (October 15 – 18, 2003).

- The 6th Conference of the Pan Arab Association of Surgeons. Presented by the Jordanian German Medical Congress, and the Jordanian Surgical Association, Amman, Jordan (2002).
- The 5th Conference of the Union of Arab Pediatrics Societies. Presented by The Pan Arab Pediatrics Societies, The Jordanian Pediatrics Society, and Jordan University, Amman, Jordan (April 12 – 14, 1995).

ADDITIONAL INFORMATION:

A. Languages

1. Arabic (native)

2. English (fluent in both spoken and written)

REFERENCES

1. K N Almusrea, MD FRCSC, Director, National Neuroscince Center, King Fahad Medical Center, P. O. Box 59046 MBN 020007 Riyadh, SA 11595, mobile 966561355553, e mail kalmusrea@kfmc.med.sa.

2. PO Box VO Lewis, MD, Associate Professor, Chief - Section of Orthopaedic Oncology, MD Anderson Cancer Center, P.O. Box 301402, Unit 408, Houston, TX 77230-1402, phone : 713- 792-5073, fax: 713- 792-8448, e mail volewis@mdanderson.org.

3. Alvin H Crawford, Professor, Director of pediatric orthopedic fellowship, Co-Director of spine Center, CCHMC, 3333 Burnet Ave, MLC 2017, Cincinnati, OH 45229-3039, phone 513-636-1383, fax 513-636-3928, e mail Alvin.crawford@CCHMC.org.

4. Kim Jeffrey Garges, MD, Associated professor, chief, Spine Surgery, NASA Spine Institute, 18100 St. John Drive, Suite 300 Nassau Bay, Texas 77058, E mail: kjgarges@earthlinke.net, phone: (281)333-2727, fax: (281)333-2828

0129

Meng Chunyang

Title of abstract :

- Observation of therapeutic effect between percutaneous vertebroplasty and kyphoplasty for treatment of osteoporotic vertebral compression fracture by systematic review

0130

Kyung Hoon Kim

Title of abstract :

- Nefopam reduces post-percutaneous endoscopic lumbar discectomy dysesthesia
- Percutaneous Costoplasty for Painful Rib Metastatic Fractures

Nefopam reduces post-percutaneous endoscopic lumbar discectomy dysesthesia.

Kyung-Hoon Kim, Ho-Jin Shin, Yun-Mi Choi, Young-Min Ok

Department of Anesthesia and Pain Medicine, School of Medicine, Pusan National University, Korea

ABSTRACT

Introduction: Neuropathic pain, including paresthesia/dysesthesia in the lower extremities, always develops and remains for at least for one month to variable degrees after percutaneous endoscopic lumbar discectomy (PELD). The recently discovered dual analgesic mechanisms of action, similar to those of antidepressants and anticonvulsants, enable nefopam (NFP) to treat neuropathic pain. This study was performed to determine whether NFP might reduce the neuropathic pain component among postoperative pains.

Methods: Eighty patients, who underwent PELD due to herniated nucleus pulposus (HNP) at L4-L5, were randomly divided into two equal groups, one receiving NFP (with a mixture of morphine and ketorolac) and the other normal saline (NS) with the same mixture. The number of required bolus infusions and infused bolus volume for 3 days were compared in both groups. The adverse reactions in both groups were also recorded and compared. The neuropathic pain symptom inventory (NPSI) score was compared in both groups on postoperative days 1, 3, 7, 30, 60, and 90.

Results: The mean number of required bolus infusions and infused bolus volume were larger in the NS group for 3 days. The most commonly reported adverse reactions (ADRs) were nausea, dizziness, and somnolence, in order of frequency in the NFP group. The median NPSI score and All 5 median sub-scores in the NFP group were significantly lower than that of the NS group until postoperative day 30.

Conclusions: NFP significantly reduced the neuropathic pain component, including paresthesia/dysesthesia until 1 month after PELD. The common ADRs were nausea, dizziness, somnolence and ataxia.

Key Words: Intravenous infusion, nefopam, neuropathic pain, percutaneous discectomy, postoperative pain.

Percutaneous Costoplasty for Painful Rib Metastatic Fractures

Kyung-Hoon Kim, Ho-Jin Shin, Yun-Mi Choi

Department of Anesthesia and Pain Medicine, School of Medicine, Pusan National University, Korea

Introduction: Percutaneous costoplasty (PCP), a kind of percutaneous osteoplasty, is cement augmentation for the treatment of painful metastatic rib fractures.

Methods: A chart review was performed to evaluate the origin of the metastasis, diagnostic workup, indications, efficacy, and adverse effects of PCP.

Results: Thirty two patients (M/F = 19/13) enrolled in this study. The origin of the metastases were the lung, breast, liver, and uterine cervical cancers, in that order of frequency. The proportion of rib metastasis found with spinal metastasis at the same or different level was 75% and 95% respectively. The diagnostic workup consists of history taking, local tenderness on physical examination, and radiologic imaging, including rib series, bone scans, and computed tomography (CT)/positron emission tomography-CT. The confirmatory diagnosis was done by intercostal nerve block. The pain is provoked by lying in the dependent position, coughing, and movement. The pain was relieved immediately after the PCP. There were no complications related to the procedures.

Conclusions: The PCP gave an immediate pain relief and improved the quality of the patient's remaining life.

Key Words: Cementoplasty, neoplasm metastasis, pain management, rib fracture.

0131

Osman Aydoğdu

Title of abstract :

- Support Innovative Pre-and Postoperative in Rachis Orthopedic Surgery

0132

Jianru Wang

Title of abstract :

- How to reduce the radiation exposure in micro-invasive spine surgery?
- Reducing the Radiation Exposure during Percutaneous Kyphoplasty(PKP) by Application of Remote Control Injection System (RCIS): A Prospective Randomized Controlled Study

0133

He Shisheng

Title of abstract :

- A new intradermal locator device for percutaneous placement of lumbar pedicle screws

0134

Rong Limin

Title of abstract :

- Intraoperative Myelography in Extreme Lateral Interbody Fusion for Degenerative Lumbar Spinal Stenosis

0135

Cheng Xigao

Title of abstract :

- Retrospective clinical comparison of transforaminal lumbar interbody fusion plus unilateral pedicle screw fixation via Quadrant minimally invasive system versus open transforaminal lumbar interbody fusion in the treatment of lumbar disc herniation complicated with lumbar instability

0136

Cem Calli

Title of abstract :

- Radiological Assessment of the Spine

0137

Yesim Kırazli

Title of abstract :

- Conventional Treatment Modalities

0138

Altan Sahin

Title of abstract :

- Epidural Steroid Injections

0139

Elvan Erhan

Title of abstract :

- Radiofrequency Techniques

0140

Kader Keskinbora

Title of abstract :

- Neuromodulation

0141

İbrahim Asik

Title of abstract :

- Epidoroscopy

0142

Kemal Tolga Saracoglu

Title of abstract :

- classical vs minimal invasive approach: does the postoperative pain really matters?

0143

Alper Gokce

Title of abstract :

- Percutaneous Intradiscal Laser Teraphy

0144

Bülent Özkurt

Title of abstract :

- Clinical anatomy of the pedicles

1973 Trabzon

drbulentozkurt@yahoo.com

ÇALIŞMA TECRÜBESİ

1997-1998 Çelebi Sağlık Ocağı Pratisyen Hekim

1998-2002 ANEAH Ortopedi Kliniği Asistan Doktor

2002-2002 Sincan Devlet Hastanesi Uzman Hekim

2002-2003 Elazığ Asker Hastanesi Tabib Teğmen

2003-2010 ANEAH Ortopedi Kliniği Uzman Doktor

2010-2013 ANEAH Ortopedi Kliniği Doçent Doktor

2013- Halen ANEAH Ortopedi Kliniği Eğitim Görevlisi

EĞİTİM

2010-Halen	Ankara Üniversitesi Tıp Fakültesi, Anatomi ABD Doktora Öğrencisi
1991-1997	Ankara Üniversitesi Tıp Fakültesi,Ankara
1984-1991	Ankara Gazi Anadolu Lisesi

MEDENİ DURUMU Evli/ 2 çocuk babası

CLINICAL ANATOMY OF THE PEDICLES

Bülent Özkurt, MD.

Serdar Yılmaz, MD.

Ankara Numune Training and Research Hospital

Pedicle screw fixation has a great function on treatment of spinal disorders. Pedicle screw fixation provides stable fixation. It ıs the strongest and most reliable means of stabilization and immobilization of specific spinal motion segmets in cases of vertebral trauma, fractures, deformities, or degenerative disorders. The pedicle provides the strongest point of attachment to the spine, with the best bony purchase. Understanding the functional anatomy of the vertebral pedicles decreases the risk of neurovascular structural injuries.

Pedicles of the cervical region are closed to adjacent vulnerable neural and vascular structures these have complex and delicate anatomy, narrow pedicle, The cervical nerve roots are located immediately above and below the pedicle, with a space between the inferior wall and the next nerve root of only approximately 1.1–1.7 mm.

Thoracic vertetebral pedicle dimentions are relatively small. The dural sac and nerve roots lie immediately medial to the pedicle. The pedicle width of the thoracic segment decreased dramatically from T1 to T4 and then increased gradually to T12. Medial errors are less forgiving in the thoracic spine because there is less mobility of the spinal cord at this level in comparison to the nerve roots in the cauda equina. Lateral perforations of the pedicular cortex are potential threats to the pleural cavity, great vessels and esophagus, mainly in the upper and middle thoracic levels.

The pedicle width of the lumbar segment increased gradually from L1 to L4 and increased sharply at L5. The pedicle height of the lumbar segment gradually decreased from L2 to L5, and the pedicle height of L1 was slightly smaller than that of L2.

0145

Ziad Elchamie

Title of abstract :

- Management of Low Back Pain by Applying the Combination of Facet Radiofrequency and Nucleoplasty Injection

Management of Low Back Pain by Applying the Combination of Facet Radiofrequency and Nucleoplasty Injection

Ziad Elchami, M.D., Stefan Hellinger, M.D.

ABSTRACT

Background: Back pain is one of the most common causes of pain and disability. There are many causes of back pain, and determining the source of pain can help guide treatment of this common problem. Common causes of back pain include back muscle stain, herniated disc, spinal stenosis, and other conditions. The purpose of the study is to evaluate the effectiveness of using the combined therapy of Lumbar Facet Radiofrequency (RF) and Nucleoplasty in the treatment of LBP with lower limb pain, in patients where the role of radicular pain due to bulging disc and facet involvement is significant.

Methods: 20 patients with LBP were evaluated at the Pain & Headache Center, International Medical Center, KSA, with discogenic pain. They all underwent facet radiofrequency ablation and Nucleoplasty. The RF was applied to the facets, with the following settings: temperature: 80^0C for 60sec for 3 rounds. Trial was conducted over a 24-month period. Inclusive criteria: 8 males, 12 females, ages ranging from 42-68; patients' mean age is 55 years old. Exclusive criteria: pregnant women, children, anyone with a pacemaker, and anyone who has history of bleeding tendencies.

Results: An average improvement of 85% according to the numeric pain scale was seen in all patients. Results were sustained for a period of 20 months.

Conclusion: Patients with radicular low back pain due to bulging disc and significant facet involvement respond very well to the combined therapy and the benefit has lasted for 20 months period.

The Effectiveness of Disc Fix Therapy in the Treatment of Discogenic Low Back Pain

Stefan Hellinger, M.D., Ziad Elchami, M.D., Mohammad Basheer Issa, M.D., Eloisa Umlas, Rabah Massoud

ABSTRACT

Background: Low back pain (LBP) is a common concern, affecting almost all people during their lives. Common causes involve disease or injury to the muscles, bones/joints, disc problem and/or nerves of the spine. Once non-invasive treatments stop giving benefits, some invasive medical approaches can take place. This study aims to evaluate the effectiveness of disc fix therapy in the treatment of discogenic low back pain in patients with chronic unremitting LBP due to a contained disk herniation.

Methods: 6 patients were evaluated, according to the American Pain Society (APS) classification of LBP at the Pain & Headache Center, International Medical Center, KSA, with persistent LBP due to a contained disk herniation. They all underwent disc fix therapy, which was applied to the disc. Inclusive criteria: 2 males, 4 females; ages ranging from 38-65, with mean of 52 years. Exclusive criteria: pregnant women, children, anyone with a pacemaker, and anyone who has history of bleeding tendencies. Trial was conducted over 18-month period.

Results: An average improvement of 90% according to the numeric pain scale was seen in all. Results were sustained for a period of at least 9 months.

Conclusion: Patients with chronic unremitting LBP due to a contained disk herniation responded very well to disc fix therapy, done in timely fashion. The benefit of which lasted for almost 12 months.

0146

Gustavo Barreiro

Title of abstract :

- Vertebroplasty Vs Kifoplasty : indications and results

" Vertebroplasty Vs Kifoplasty : Indications and results"

Over the past two decade vertebroplasty and kyphoplasty (more recently) have become popular as therapeutic treatment for tumors in vertebral body and vertebral osteoporotic fractures and traumatic options. Uncontrolled studies have indicated that both procedures are very effective in controlling pain associated with fractures of vertebral bodies. However, some randomized trials published subsequent cast doubts on the real effectiveness of these procedures ..

In our experience over 12 years first with vertebroplasty in 330 patients and then with kyphoplasty in 45 patients we can say that both techniques are safe in experienced hands , sharing precise indications and contraindications. Kyphoplasty improves kyphosis angle and presents less risk of leakage of contrast , even though it is unclear if it is such a benefit from the clinical point of view . There is also no definitive evidence as to whether or not these procedures increase the incidence of new fractures and they have not proven preventive value .

Therefore we believe that vertebroplasty and kyphoplasty should not be considered as routine therapeutic measure They must be limited to carefully selected patients in whom the potential benefits outweigh the risks and costs of the procedure are useful if they are used properly accurate by experienced hands in the field of minimally invasive spinal surgery .

Dr. Gustavo Barreiro , Neurosurgeon and Spine Surgeon

Bariloche, Rio Negro, Argentina

0147

Andre Lafratta

Title of abstract :

- Use of Interspinous Spacer Coflex in Lumbar Degenerative

USE OF INTERSPINOUS SPACER COFLEX IN LUMBAR DEGENERATIVE DISEASES

ABSTRACT

Objective :

Evaluate the use of interspinous spacer type COFLEX in patients with lumbar disc herniation and spinal canal stenosis by a minimal invasive approach.

Methods : Retrospective study involving 35 patients who were divided into 2 groups:

20 patients with spinal stenosis and may be central or foraminal, where the centrals were emptied directly laminectomy and indirectly the foraminal.

15 patients with lumbar disc herniations with sciatic pain clinic without instability.

All patients were evaluated by 3 questionnaires, Oswestry Disabilty Index, Roland Morris and VAS in preoperative segments, 3months, 6 months and 1 year after surgery.

Results : The device could prove very effective in diseases having operated a large improvement in the questionnaires used, with any re-surgery.

Conclusion: A method effective in the treatment of lumbar disc herniation and spinal stenosis, but we need long-term follow-up to validate the statement.

Keywords: Spine/surgery; Intervertebral disc displacement; Spinal disease; Questionnaires

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0148

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Medical Education and Training:

- Orthopedic Residency Program: Case Western Reserve University/University Hospitals of Cleveland, Cleveland Ohio, 1995 – 1999.
- Fellowship training in orthopedic spine surgery: Case Western Reserve University/ University Hospitals of Cleveland, 1992 – 1995.
- Clinical Fellow: Princess Margaret Rose Orthopedic Hospital, Fairmile Head, Edinburgh, UK, 1985-1986.
- Orthopedic Residency Training: Norfolk and Norwich Hospital, Norwich, England, 1981-1984.
- General Surgery Residency Training: Kenyatta National Hospital, Nairobi KENYA, 1978-1980.
- Internship in medicine and surgery: Coast Province General Hospital, Mombasa, Kenya, 1977-1978.
- Medical Education, University of Nairobi, Nairobi, Kenya, 1972-1977
- College: Kangaru School, Embu, Kenya, 1970-1971.

Honor and Awards

2005 1 Class Honors in Biology, 1971
2006 1st Class Honors in Biochemistry, 1972
2007 The Kambin Foundation Annual Award for the paper in the field of Minimally

invasive spinal surgery, 1994

2008 Best Residents Paper – Ohio Orthopedic Society, 1996.

Professional Experience:

2004 **09/1999 – 08/2006:** Attending orthopedic surgeon, Frederick Memorial Hospital, Frederick Maryland.

2005 **11/2006 – 7/2011:** Attending orthopedic surgeon, Russellville Hospital, Russellville, Alabama.

2006 **11/2006 – 7/2011:** Attending orthopedic surgeon, Lakeland Community Hospital, Russellville, Alabama

2007 **9/2011 –Present:** Attending orthopedic surgeon, Frederick Memorial Hospital, Frederick, Md.

2008 **9/2011 – Present:** Attending orthopedic surgeon, American Spine Center, Frederick, Md.

Areas of Clinical Practice:

2004 **Spine:**

2005 Least Invasive Spine Surgery: lumbar decompression, fusion and instrumentations (LINDIF);

2006 X-LIF (extreme lateral lumbar interbody fusion)

2007 Minimally invasive deformity surgery – thoracic/lumbar;

2008 Arthroscopic decompressions – lumbar, thoracic, cervical;

2009 Minimally invasive dynamic stabilization of lumbar spine

2010 Minimally invasive sacroiliac fusion and instrumentation

2011 Transiliac endoscopic approach to L5-S1 disc and foramen

2012 Lumbar and cervical disc arthroplasty

2013 Open decompressions, fusion and instrumentation (anterior, posterior) – lumbar, thoracic and cervical;

2014 Complex revisions – lumbar, cervical.

2015 Surgical management of spinal tumor;

2016 Surgical management of spinal fractures;

2017 Augmentation of osteoporotic vertebral fractures – kyphoplasty/vertebroplasty

2018 Diagnostic/therapeutic injections – facet block, nerve block, discography –lumbar, thoracic, cervical.

1992 **Joint Replacement:**

1993 Hip, knee, shoulder, elbow, wrist, hand

1994 **Sports Medicine**

1995 Arthroscopic procedures – knee, shoulder, elbow, wrist, ankle.

1996 **Hand:**

1997 Carpal tunnel release, trigger fingers, Dupuytren's contracture, tendon repair (flexor/extensor), infections, joint surgery, fractures.

1998 **Foot and Ankle:**

1999 Joint replacements/fusions; deformity corrections (adults); fracture managements; amputations.

2000 Orthopedic trauma:

2001 Upper extremities, lower extremities, spinal, pelvic.

Areas of Research Interest:

- Development of the least invasive spine surgery approaches, including but not limited to decompression, fusion and arthroplasty in the lumbar, thoracic and cervical spine.
- Development of least invasive spinal implants including biologic interbody devices, biologic interlaminar device, vertebral reconstruction, annular and nuclear replacements and facet athroplasty.
- Development of artificial bone
- Development of biologic fixation devices for long bone fractures
- Least invasive, biologic peripheral joint arthroplasty
- Creation of endoscopic interstitial operating space.

Inventions:

- Uni-directional Dynamic Spinal Fixation Device - US Patent # 6,932,820 B2 (The Ant-Cer cervical plate, by Zimmer/Abbot Spine is based on this concept).
- Method for post-operatively compressing a bone graft – US Patent # 7,645,295 B2)
- Biologic Intramedullary Fixation Device and Methods of Use – US Patent # 7,947,042 B2
- Biologic Vertebral Reconstruction - US Patent # 8,292,961
- Transpedicular, extrapedicular and transcorporeal partial disc replacement = US 8,540,772 B2
- Biologic Artificial Bone - US 20090157181 A1
- Intervertebral Disc Reamer - Serial No. 12/210,651 (Based on USSN 60/972,412***)***

Licensure and Board Certification:

- Licenses:
  - State Medical Board of Ohio License # 35-06-6879-O Exp: 4/1/2000
  - State of Maryland License # D0055038 Exp: 9/30/11
  - State of Alabama
  - Pennsylvania

- Certifications
  - Fellow of American Academy of Orthopedic Surgeons 2009.
  - American Board of Orthopedic Surgery 2007
  - Fellow of the Royal College of Surgeons of Edinburgh (Orthopedics) 1986
  - Fellow of the Royal College of Surgeons of Edinburgh 1981

-
- Societies/Organizations
  - Charles Herndon Society - CWRU
  - American Academy of Orthopedic Surgery.
  - North American Spine Society
  - International Society for the Advancement of Spine Surgery (ISASS)
  - Society for Minimally Invasive Spine Surgery (SMISS)
  - Fellow of Royal College of Surgeons, Edinburgh

Publications:

Osman SG, Marsolais EB: Endoscopic Electrode Implantation for the Enhanced Stimulation of the Hamstring Branches of the Sciatic Nerve. ***Arthroscopy,*** **1994, 10(3):270-274.**

Osman SG, Marsolais EB. Posterolateral Arthroscopic Discectomies of the Thoracic and Lumbar Spine. ***Clinical Ortho. & Related Research*****: 304:122-129, 1994.**

Osman SG, Polando G, Marsolais EB. Endoscopic Electrode Implantation – A New Technique in an Animal Model**.** ***Clinical Ortho. & Related Research*****, 318:251-258, 1995.**

Osman SG, *et al*. Transforaminal and Posterior Decompression of the Lumbar Spine – A Comparative Study of Stability and Intervertebral Foraminal Area. ***Spine,*** **22 #15:1690-1697.**

Osman SG, *et al*. Endoscopic Transiliac Approach to L5-S1 Disc and Foramen – A Cadaver Study. ***Spine*****: 22, #11:1259, 1997.**

Osman, SG, *et al*. Arthroscopic Decompression and Interbody Fusion of the Thoracic Spine - A Report of Ipsilateral Two Portal Approach. **International Journal of Spine Surgery,** Volume 6, Issue 1 , Pages 103-109, December 2012

Osman SG. Endoscopic Transforaminal Decompression, Interbody Fusion and Percutaneous Pedicle Screw Implantation. **International Journal of Spine Surgery.** Volume 6, Issue 1 , Pages 157-166, December 2012

Minimally Invasive Treatment-based Classification of Diseased Lumbar Spinal Motion-segment. (Pending publication IJSS).

MIS Treatment-based Classification of intervertebral disc pathology (pending publication in IJSS)

Presentations:

Endoscopic Electrode Implantation, for Enhanced Stimulation of the Hamstring Branches of the Sciatic Nerve. ***American Spinal Injury Association Annual Conference.*** May 12, 1993.

Endoscopic Implantation of Cuff Electrodes on the Hamstring Branches of the Sciatic Nerve. ***The American Spinal Injury Association annual conference***, Philadelphia, May, 1994.

Posterolateral Arthroscopic Discectomies of the Thoracic and Lumbar Spine. ***9th International Symposium on Minimal Intervention in Spine Surger:*** Nov., 1994.

Posterolateral Arthroscopic Discetomies of the Thoracic Spine – A Preliminary Report. ***Ohio Orthopedic Society***, May 1996

Posterolateral Endoscopic Discectomies and Fusion of the Thoracic Spine. North ***American Spine Society annual meeting***, New York, 1997.

Posterolateral Endoscopic Discectomies of the Thoracic Spine. ***North American Spine Society annual meeting***, San Francisco, 1998

Least Invasive Decompression, Interbody fusion, and Pedicle Screw Implantation of the Lumbar Spine –A Case Series Report. ***Society for Minimally Invasive Spine Surgery annual meeting (ISMISS).*** Miami, November, 2010.

Least Invasive Decompression, Interbody fusion, and Pedicle Screw Implantation of the Lumbar Spine –A Case Series Report. ***International Society for Advancement of Spine Surgery (1SASS).*** Las Vegas, April, 2011

Least Invasive Decompression, Interbody fusion, and Pedicle Screw Implantation of the Lumbar Spine –A Case Series Report. ***Latin American Society for Advancement of Spine Surgery (LASAS), August 2011***

An Ipsilateral Bi-portal Arthroscopic Trans-iliac Approach to L5-S1 Disc and Foramen***. Latin American Society for Advancement of Spine Surgery (LASAS), August 2011.***

Arthroscopic Disectomy and Interbody Fusion of the Thoracic Spine - A Report of Ipsilateral Two Portal Approach. ***Latin American Society for Advancement of Spine Surgery (LASAS), August 2011.***

An Ipsilateral Bi-portal Arthroscopic Trans-iliac Approach to L5-S1 Disc and Foramen. ***International Society for Advancement of Spine Surgery Annual Meeting, Barcelona, Spain, May 2012.***

Least Invasive Decompression, Interbody fusion, and Pedicle Screw Implantation of the Lumbar Spine –A Case Series Report. ***International Society for Advancement of Spine Surgery (ISASS) Annual Meeting, Barcelona, Spain, May 2012.***

Arthroscopic Disectomy and Interbody Fusion of the Thoracic Spine - A Report of Ipsilateral Two Portal Approach. ***International Society for Advancement of Spine Surgery Annual Meeting, Barcelona, Spain, May 2012.***

Endoscopic Transiliac Approach to L5-S1 Disc and Foramen - A Cadaver Study**.** ***International Society for Advancement of Spine Surgery Annual Meeting, Barcelona, Spain, May 2012.***

Transforaminal & Posterior Decompression of the Lumbar Spine - A Comparative Study of Stability and Intervertebral Foraminal Area. ***International Society for Advancement of Spine Surgery Annual Meeting, Barcelona, Spain, May 2012.***

Arthroscopic Disectomy and Interbody Fusion of the Thoracic Spine - A Report of Ipsilateral Two Portal Approach. ***International Society for Advancement of Spine Surgery Annual Meeting, Vancouver, BC, Canada –April, 2013.***

Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen - A Report of Clinical Experience. ***International Society for Advancement of Spine Surgery Annual Meeting, Vancouver, BC, Canada –April, 2013.***

Minimally Invasive Treatment-based Classification of Diseased Lumbar Spinal Motion-segment. ***International Society for Advancement of Spine Surgery Annual Meeting, Vancouver, BC, Canada –April, 2013.***

Endoscopic Transiliac Approachto L5-S1 - Disc and Foramen A Cadaver Study. ***International Society for Advancement of Spine Surgery Annual Meeting, Vancouver, BC, Canada –April, 2013.***

Endoscopic Transforaminal Decompression, Interbody Fusion & Pedicle Screw Implantation.- (ETDIF) - A Case Series Report. ***International Society for Advancement of Spine Surgery Annual Meeting, Vancouver, BC, Canada –April, 2013.***

Osman SG . Sherlekar S, Malik A, et al. Percutaneous Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen – A Report of Clinical Experience. ***International Society for Minimally Invasive Spine Surgery, Japan 2013.***

Personal Interests.

Traveling when I have time

Help improve health and educational services in Ethiopia and Kenya

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Title of abstract :

- Percutaneous Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen – A Report of Clinical Experience.
- Percutaneous Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen – A Report of Cadaver Study.
- The Challenges of Lumbosacral Junction to the Spine Surgeon - Case for a New Surgical Option

LUMBOSACRAL CHALLENGES TO SPINE SURGEON – *CASE FOR A NEW OPTION*

Said G Osman, M.D., F.A.A.O.S., F.R.C.S.Ed. (ortho)

Background: The lumbosacral junction transmits the entire weight of the upper body through 15.2 cm^2 L5-S1 disc and the facet joints, on a sloping foundation, to the pelvis. Surgery which compromises the anatomy of this precarious entity may lead to destabilization of the spine. The desire to avoid destabilization has led to evolution of multiple surgical approaches. However, the fundamental problem of the surgical treatment of the lumbosacral junction, as in the other areas of the spine, is the lack of a universally accepted classification system, which allows doctors treat based on the same diagnoses.

Purpose:

1. To identify lumbosacral challenges to the spine surgeon: anatomical, pathologic, patient-specific, surgery related, diagnostic imaging-related and spinal motion-segment disease classification-related.
2. To describe comprehensive, MRI/CT scan-based spinal motion-segment classification; grading of patient's axial and radicular symptoms, patient-specific attributes, surgical option related risks, to determine the best surgical option.
3. To describe a new and less anatomically disruptive technique for endoscopic decompression and lumbosacral fusion.

Materials & Methods:

The patient's symptoms, age, BMI, co-morbid status, and risks of relevant surgical options are numerically graded. The MRI/CT scan findings are also graded based on the severity of the disc, facet, mal-alignment, and ligamentum flavum abnormalities ($D_XA_XL_XF_X$). The data so obtained is used to prioritize the relevant treatment options. The surgeon examines the prioritization and applies the best option to suit the patient's pathology. Pre- and post-operative VAS scores, ODI, and SF-36 and intra-operative data including were recorded.

Procedure: After anesthesia or sedation, patient is placed prone on operating table. The disc-line is marked under fluoroscopic control. Guide wire is driven through

the ilium, through stab incision, at a predetermined distance and angle, targeting the posterolateral disc for the optimal positioning of the OLLIF cage. Cannulated trephine is used to remove a dowel of bone. Endoscopic transforaminal discectomy is performed. Oblique lateral lumbar interbody fusion (OLLIF) instrumentation and end-plate preparation is performed, and after sizing the cage with appropriate spacer, allograft bone chips mixed with bone marrow aspirate is placed anteriorly in the disc space followed by the implantation of OLLIF cage.

Result:

Over three months duration 13 trans-iliac OLLIF fusions were performed (F=6, M=7). Mean age = 47.92 years (33-60). No complications other than mild post op dysasthesia in 3 cases which is resolving.

Discussion:

There is need to give universally accepted numerical value to all aspect of the patient – age, BMI, and co-morbid status. Comprehensive image-based classification system which takes into account all the players of motion-segment is needed. There is need to tailor the surgical option to the combined grading all elements of the patient study, the surgeon can then critique the choice and do best-fitting surgery for the patient.

Conclusion: The unified classification system works well. Posterior Trans-iliac approach is feasible, least disruptive, and safe. A randomized controlled study is needed to test the system against traditional approach.

0149

Hyeun Sung Kim

NAME : HYEUN SUNG KIM

TITLE : MD, PHD

EDUCATION : Medical College of Chosun University, Gwangju, South Korea (1994)

SPECIALIZATION : Neurosurgery

POSITION : The Director of a Hurisarang Spine Hospital (Daejeon, South Korea)

: A member of a standing committee and An Overseas Cooperation of the Korean Association of Minimal Invasive Spine Surgery Society (KOMISS)

: An Executive Director of the Korean Society of Peripheral Nervous System

: A member of a standing committee of the Korean Spinal Deformity Research Society

: A member of a standing committee of the Korean Spinal Osteoporosis Research Society

: A member of the Korean Society of Interventional Muscle and Soft Tissue Stimulation Therapy

MEMBERSHIPS & PROFESSIONAL SOCIETIES (More than 20 Society): Korean Neurosurgical Society / Korean Neurosurgical Spine Society / Korean Minimal Invasive Spine Surgery Society (KOMISS) / Korean Society of Peripheral Nervous System / Korean Spinal Deformity Research Society / Korean Spinal Osteoporosis Research Society / Korean Society of Interventional Muscle and Soft Tissue Stimulation Therapy / Eurospine / NASS / ISASS / AANS / WCMISST / ACMISST / KASS / AO Spine / Asia Spine / World Spine Society / Korean Neuro-Pain Society

PAPERS & PUBLICATION (More than 40 papers)

- Kim HS et al. Endoscopic Transforaminal Suprapedicular Approach in High Grade Inferior Migrated Lumbar Disc Herniation. JKNS 2009
- Kim HS et al. Minimally Invasive Multi-Level Posterior Lumbar Interbody Fusion Using a Percutaneously Inserted Spinal Fixation System: Technical Tips, Surgical Outcomes. JKNS 2011
- Kim HS, Park JY. Comparative study between different percutaneous endoscopic interlaminar lumbar discectomy(PEID) techniques: Recurrence after PEID with vs without annular sealing. Pain Physician 2013
- Kim HS et al. Implant Removal after Percutaneous Short Segment Fixation for Thoracolumbar Burst Fracture: Does It Preserve Motion? JKNS2014

LECTURES (More than 50 times)

- Korean Neurosurgical Society: Luncheon Seminar: PELD; Benefits and Limitations
- WCMISST 2012, Brazil: Minimally invasive TLIF and PLIF using the rimmed head type percutaneous transpedicular screw fixation system named Apollon system
- WFNS 2013, Korea: Structural preservation percutaneous endoscopic lumbar discectomy
- 2014 – 3rd ACNS Educational course Karachi, Orthotrends 2014, International MIS Congress Kuala Lumpur 2014

PRESENTATIONS (More than 70 presentations)

- 2010 – SAS / NASS / World Spine / KNS
- 2011 – KNS / KOMISS / ISASS / Eurospine / ACMISST / Asia Spine
- 2012 – ISASS / WCMISST / KNS / KOMISS
- 2013 – ACMISST / ISASS / KNS / WFNS / IITS / ASIA SPINE / EUROSPINE / WENMISS

Title of abstract :

- Surgical Anatomy and Pitfalls of Transforaminal PELD
- PSF and Implant Removal for Thoracolumbar Fracture
- Structural Pservation Interlaminar PELD

Mini-open TLIF, PLIF and ELIF using the Percutaneous Transpedicular Screw Fixation System

Hyeun Sung Kim, M.D.[1], Se Jin Jung M.D.[1], Ki Hyun Jeon, M.D.[1], Woo Jin Choi, M.D.[1], Kwan Tae Kim, M.D.[1], Keun Soo Jang, M.D., Seok Won Kim, M.D., Ph.D., Chang Il Ju, M.D., Seung Myung Lee, M.D., Ph.D., Ho Shin, M.D., Ph.D.

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Objective: Minimally invasive percutaneous screw fixation allows for significantly less blood loss and tissue disruption than open surgery. However, there are technical limitations performed by the percutaneous technique. Here, the surgical technique and outcome of minimally invasive posterior lumbar interbody fusion of transforaminal lumbar interbody fusion (TLIF), posterior lumbar interbody fusion (PLIF) and extraformainal lumbar interbody fusion (ELIF) using a percutaneous transpedicular screw fixation system is described.

Methods: The patients that had mini-open PLIF, TLIF and ELIF using the percutaneous screw fixation system were studied. The clinical outcome was assessed using the visual analog scale (VAS) and Low Back Outcome Score (LBOS). In addition, achievement of radiological fusion, intra-operative blood loss, the postoperative midline surgical scar and procedure related complications were analyzed.

Results: The LBOS prior to surgery was improved significantly at the final follow up. The pain score (VAS) prior to surgery was decreased significantly at the last follow up. The mean estimated blood loss was 238ml (140-350mL) for the two level procedures and 387ml (278-458mL) for three levels. The postoperative midline surgical scar was 6.27cm for two levels and 8.25cm for three level procedures. However, there were no signs of neurological deterioration or fusion failure.

Conclusion: Minimally invasive PLIF, TLIF and ELIF could be performed without much difficulty using the percutaneous transpedicular screw fixation system.

Reduction of moderate to high grade Spondylolisthesis after circumferential releasing technique under the mini-open posterior lumbar interbody fusion

Hyeun Sung Kim, M.D. Ph.D., Se Jin Jeong M.D., Hyung Jun Ahn, M.D., Ki Hyun Jeon, M.D., Woo Jin Choi, M.D. Ph.D., Kwan Tae Kim, M.D. Ph.D., Keun Soo Jang, M.D. [1], Seok Won Kim, M.D., Ph.D. [1], Chang Il Ju, M.D. [1], Seung Myung Lee, M.D., Ph.D. [1], Ho Shin, M.D., Ph.D[1].

Department of Neurosurgery, Hurisarang Spine Hospital, Daejeon city, Republic of Korea
Department of Neurosurgery, College of Medicine, Chosun University, Gwangju city, Republic of Korea[1]

Purpose: To restore spinal angle after lumbar interbody fusion surgery of spondylolisthesis, it is necessary for patients to undergo reduction of spondylolisthesis. But, in cases of moderate to severe spondylolisthesis, reduction of spondylolisthesis is not easy under the conventional methods and may induce the neurological deterioration after artifically reduction. The purpose of this study was to achieve the safe and easy technique for minimizing the neurologic deterioration and maximizing the reduction of spondylolisthesis using mini-open, posterior-lumbar interbody fusion under circumferential releasing technique.

Material & Methods: This study involved 50 cases who received mini-open PLIF with percutaneous screwing, due to more than Mayerding Grade II spondylolisthesis. Mean age was 59.44 ± 8.63 years, mean follow-up period was 24.1 ± 13.5 months. According to the type of spondylolisthesis, 22 cases involved in degenerative type spondylolisthesis, and 28 cases involved in isthmic spondylolisthesis. According to the rate of slippage, 42 cases

included in Grade II (25%-49%: 25%-34%; 29 cases, 35%-49%: 13 cases), 5 cases included in Grade III (50%-74%) and 3 cases included in Grade IV (~75%). The mean rate of slippage was 37.98 ± 12.6%. All patient received mini-open, posterior-lumbar interbody fusion under epidural anesthesia using the rimmed head screw type percutaneous screw system named Apollon System (Solco Medical, South Korea), which has the advantage of facilitating spontaneous reduction during rod insertion. A circumferential releasing technique was performed according to the following sequence: 1. Intraoperative postural reduction position; 2. facet joint mobilization decompression; 3. Segmental Mobilization by wide distraction of restricted disc space using the rimmer distractor; 4. Increasing sacral slope by pressure compression and rod compression during rod tightening: Rimmed head type screw with percutaneous rod system; and 5. Increasing the anterior disc height by angled lumbar interbody fusion cage. The clinical results were evaluated by degree of slippage reduction, degree of disc height restoration, degree of lumbar lordosis restoration, degree of segmental angle restoration, and degree of postoperative neurological complications.

Results: The degree of slippage rate preoperative was: 37.98 ± 12.55% (~49%: 33.3 ± 4.7, 50%~: 62.5 ± 12.5) to postoperative: 9.3 ± 7.8% (~49%: 7.1 ± 4.4, 50%~: 20.7 ± 11.6). The degree of disc space was preoperative: 5. 5 ± 2.7mm (~49%: 6.2 ± 2.4, 50%~: 2.1 ± 1.0) to postoperative: 12.1 ± 1.7mm (~49%: 12.4 ± 1.6, 50%~: 10.4 ±1.5). The preoperative lumbar segmental angle preoperative was: 43.0 ± 13.8 degree (~49%: 42.0 ± 14.2, 50%~: 48.6 ± 10.3) to postoperative: 48.2 ± 10.3 (~49%: 47.4 ± 10.2, 50%~: 52.2 ±10.8) and focal segmental kyphotic angle was preoperative: 10.1 ± 8.5 degree (~49%: 10.5 ± 8.8, 50%~: 7.9 ± 6.9) to postoperative: 15.9 ± 6.0 (~49%: 15.7 ± 6.0, 50%~: 17.1 ± 5.6). There was no definite motor weakness after operation. However, 3 cases (6%) suffered only transient, mild, motor weakness and 7 cases (14%) suffered transient sensory change.

Conclusion: According to the results, we could obtain maximal reduction of spondylolisthesis under minimal neurologic deterioration in the cases of a moderate to high grade of spondylolisthesis using the circumferential segmental releasing technique.

Non-fusion, Fracture Vertebral Augmented, Percutaneous Short Segment Transpedicular Screwing after Postural Reduction and Percutaneous Implant Removal in Neurologically Intact Unstable Thoracolumbar Burst Fractures

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Purpose: It is inevitable that fusion surgery to treat thoracolumbar burst fracture leads to motion limitation. However, non-operative treatment induces the kyphotic deformity, as well.

The aim of this study was to evaluate the non-fusion percutaneous screwing and implant removal for methods of preserving motion and of reducing the resulting kyphotic deformity.

Material & Methods: The is a retrospective study that evaluates the results of surgical outcome. Between May 2007 and Jan 2011, 44 patients underwent surgery that included percutaneous short segment screws due to unstable thoracolumbar burst fractures. Among these surgical patients, 16 patients, who underwent percutaneous short segment screwing and implant removal using the same route for unstable burst fractures and experienced a greater than 50% loss of vertebral height, were enrolled in this study.

The surgical procedure included postural reduction for 2 days, fractured vertebrae augmented by polymethylmetacrylate (PMMA) (with osteoporosis) or non-PMMA materials (without osteoporosis).

Based on the level of osteoporosis in the fractured vertebrae, patients were assigned to one of 2 groups: (1) Group A (n=8): Non-osteoporotic fracture vertebrae underwent Non-PMMA fracture vertebral augmentation. (2) Group B (n=8): Osteoporotic fracture vertebrae undewent PMMA fracture vertebral augmentation. The vertebral augmentation procedure was performed for fracture level itself in group A: with non-PMMA augmentation mateirals, in group B: with PMMA. Percutaneous screw fixation was performed using a percutaneous screwing system (Apollon System, Solco Medical, South Korea).

All patients obtained solid fusion of the fracture vertebrae by CT image after 6 months from percutaneous screwing. The following outcome measures were compared between the 2 groups: loss of vertebral height, kyphotic angle, an motion range in flexion-extension.

Results: In the corresponding order of Group A, B, mean follow-up period to implant removal was 7.25 months and 6.63 months, mean follow-up period after implant removal was 12.63 months and 10.75 months. Mean age was 40.25 years and 64.75 years. In the corresponding order of preoperative, after percutaneous screwing and final follow-up after implant removal, loss of vertebral height in group A was 58.12%, 15.25% and 17.37%, in group B was 65.62%, 12.87% and 15.12%. Kyphotic angle of fracture vertebrae in group A was 24.88 degree, 7.50 degreee and 8.63 degree, in group B was 25.63 degree, 7.25 degree and 8.88 degree. Motion range (flexion / extension) in group A was 3.13 degree (19.00 degree / 15.88 degree), 0.75 degree (6.25 degree / 6.00 degree) and 6.38 degree (11.3 degree /4.88 degree), in group B was 7.13 degree (18.38 degree / 11.25 degree), 1.13 degree (5.88 degree / 4.75 degree) and 7.25 degree (11.13 degree / 3.88 degree).

Conclusion: Using the postural reduction and fracture vertebral augmentation, non-fusion percutaneous screwing was an effective method to correct kyphotic deformity resulting from unstable burst fractures in spite of grater than 50% loss of vertebral height and preserving the motion segment. We restored the motion segment effectively by removing the implant after having obtained solid fusion of the fracture vertebrae.

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Forename : Akira

Sex : Male

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Education:

1974-1980 University of Chiba

Awarded the degree of medical doctor

1982-1986 Department of orthopaedic surgery, University of Chiba

Awarded the degree of PhD in spinal cord injury for a thesis entitled "Quantitative analysis of spinal cord injury using the isopotential spinal cord surface mapping ".work supervised by professor Shunichi Inoue.

Work Experience

2006-present vice director Teikyo

University School of Medicine,Mizonokuchi hospital

2004-present professor Department of Orthopaedics ,Teikyo

University School of Medicine,Mizonokuchi hospital

1996-2004 Associated professor, Department of Orthopaedics ,Teikyo

University School of Medicine,Mizonokuchi hospital

1991-1996 Assistant professor Department of Orthopaedics,Teikyo

University

1988-1991 Manager of Chiba Ryoikucenter

1987-1988 Head of Orthopaedics National Yokohama Higashi Hospital

Academic position

PASMISS(The Pacific Asian Society of the Minimally Invasive Spine Surgeries)

2nd president

Japan Society for the Study of Spinal Endoscopy 1st President

Japanese Minimally Invasive Orthopaedic Society 9th President

Japan PED Society 1^{st}-4^{th} President

ISMISS Japanese represent

SICOT member

Japan Society Endoscopic Surgery the board of directors

Japanese Spine Research Society the board of directors

Japan Orthopaedic Society surgical skill qualification committee director

Japan Society for Endoscopic Surgery council board member

a committeeman of technical terminology

Japan Arthroscopy Association the board of directors

Japanese Orthopaedic Association council board member

Japanese Spinal Association council board member

Award(International)

JSES Karl Stort prize 2003

IITS Best poster 2007

ISMISS Turkey Best paper 2010

Editorial board

European Spine Journal

ISRN Minimally Invasive Surgery

Asian Journal of Endoscopic Surgery

Asian Spine Journal

Journal of Orthopedic Science

Short CV

Akira Dezawa M.D. Ph.D is Deputy Director at Teikyo University School of Medicine Mizoguchi Hospital since 2006. He also services as the Professor in Department of Orthopedics at Teikyo University since 2004. His expertise includes Endoscopic Spinal Surgery and he is the well-known physician for the minimally invasive spine surgery. He is the 2nd President of PASMISS(The Pacific Asian Society of the Minimally Invasive Spine Surgeries), the 1st president of Japan Society of the Study of Spinal Endoscopy, the 9th president of Japanese Minimally Invasive Orthopedic Society, the 1st President of Japan PED Society , Japanese Represent of ISMISS, the Board of Directors for Japan Society Endoscopic Surgery, the Board of Directors for Japanese Spine Research Society, Director of Japan Orthopedic Society surgical skill qualification committee, Council Board Member & Committeeman of technical terminology for Japan Society for Endoscopic Surgery, the Board of Directors for Japan Arthroscopy Association, Council Board Member for Japanese Orthopedic Association and Council Board member for Japanese Spinal Association. He graduated with M.D. from Chiba University in 1980 and received Ph.D. in Spinal Injury from Chiba University in 1986. Award(International) is JSES Karl Stort prize (2003) IITS Best poster(2007), ISMISS Turkey Best paper(2010). Editorial board is European Spine Journal, Asian Journal of Endoscopic Surgery, Asian Spine Journal.

Title of abstract :

- Pros & cons of percutaneous endoscopic interlaminar approach versus microendoscopic technique
- PEDscope release of the piriformis muscle under local anesthesia for piriformis syndrome

Pros & cons of percutaneous endoscopic interlaminar approach versus microendoscopic technique

Kawasaki Japan Akira Dezawa

OBJECT:

The object of this study was to assess the feasibility and efficacy of a novel, minimally invasive spinal surgery technique to correct degenerative lumbar spinal stenosis involving a modified unilateral-approach percutaneous endoscopic decompression.

Tissue-sparing procedures are becoming more common. Endoscopic techniques have become the standard in many areas because of the advantages they offer in surgical technique and in rehabilitation. The goal of this prospective randomized controlled study was to compare the surgical results for the technique via the interlaminar approach with those of the conventional microendoscopic technique(MED) in patients with degenerative spinal canal stenosis.

METHODS:

In this prospective study,60 patients with lumbar stenosis were randomly assigned to undergo either a novel percutaneous endoscopic laminectomy, (30 patients) or microendoscopic laminectomy (30 patients). Spinal anteroposterior diameter, cross-sectional area, lateral recess distance, spinal stability, postoperative back pain, functional outcomes, and muscle trauma were evaluated. Follow-up ranged from 20 to 24 months, with a mean of 19.5 months for the novel procedure group and 19.1 months for the MED group.

RESULTS:

The results show that 76.8% pats reported no longer having leg pain, and 20.5% had only occasional pain. The clinical results were the same in both groups. The rate of complications and revisions was significantly reduced in the group. This novel techniques brought advantages in the following areas: operation, complications, traumatization, and rehabilitation.Satisfactory neurological decompression and symptom relief were achieved in 90% of these patients. There was no significant clinical difference compared with the MED group's results. There was no evidence of spinal instability in any patient, and no patient required a follow-up MED laminectomy.

CONCLUSIONS:

Although this method requires more operating time than a MED method, it requires only minimal muscle trauma and spinal stability maintenance, and allows for early mobilization. This shortens the hospital stay, reduces postoperative back pain, and leads to satisfactory neurological and functional outcomes. Moreover, with the midline approach, decompression was accomplished without compromising the facet joints, even with a narrow width of lamina. The clinical results of the interlaminar technique are equal to those of MED technique. At the same time, there are advantages in the operation technique, such as reduced traumatization. The interlaminar spinal decompression procedure is a sufficient and safe supplement and alternative to MED procedures.

PEDscope release of the piriformis muscle under local anesthesia for piriformis syndrome

Akira Dezawa Yasuhiro Kitagawa

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We developed a minimally invasive technique of releasing the piriformis muscle under endoscopic control for entrapment neuropathy of the sciatic nerve due to tension and contraction of the piriformis muscle. This is a technical report on minimally invasive arthroscopic release of the piriformis muscle. This surgical technique was performed in patients who fulfilled at least 5 of 9 diagnostic criteria we established and also did not respond to conservative therapy for 6 months or more. While a cavity was maintained using a disposable syringe (10 cc) with a cut tip, an arthroscope (4 mm in diameter) was inserted at an oblique viewing angle of 30º, and the muscle was identified. The area from the musculotendinous junction to the muscle was gradually incised using a special scraper. In particular, pain disappeared simultaneously with release of the piriformis muscle during operation. In this technique of releasing the piriformis muscle, an adequate cavity can be produced and maintained in a manner similar to that in the posterior endoscopic operation for intervertebral disc herniation. This technique is useful for reducing postoperative pain and allows early return to society.

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Celso Fretes Ramirez

Title of abstract :

- Dynamic Interlaminar Device in the lumbar foraminal stenosis. Indications and Results

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Yin Heping

Title of abstract :

- The clinic studying of annulus fibrosis suturing and repairing on Microendoscopic Discectomy

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Stylianos Kapetanakis

Title of abstract :

- Percutaneus Discoplasty (Discogel) Treatment in Lumbar Discs Herniations

0154

Marcos Baabor

Title of abstract :

- Prótesis Anular En Herniación Del Núcleo Pulposo

0155

Carlos Montes

Title of abstract :

- Complicaciones De Tlif Percutáneo Con Cajas De Peek

0156

Alvaro Dowling

Title of abstract :

- Uso De La Endoscopía En Síndrome De Espalda Fallida

0158

Marcelo Perez

Title of abstract :

- Abordaje Lateral Para Las Reconstrucciones Anteriores De Deformidades Complejas De Columna Toracolumbar

0159

Roberto Diaz

Title of abstract :

- Tratamiento Mínimamente Invasivo De Tumores Vertebrales Intracanal

0160

Carlos Francisco Gutierrez Partida

Title of abstract :

- El Concepto De Descompresión Indirecta Del Forámen Lumbar Estenótico En Cirugia Minimamente Invasiva De Columna: Perspectiva Neurofisiológica

The Concept of Indirect Decompression of Stenotic Lumbar Foramen

in Minimally Invasive Spine Surgery: Neurophysiological Perspective.

The aim of this cohort study was to evaluate the effect of the placement of lumbar interbody cages by XLIF technique and evaluate the height of the intervertebral space and neuropsychological improvement in the corresponding segmental roots.

In the present study , we demonstrated a group of patients with different degenerative pathologies of the lumbar spine, with no evidence of nerve root compression , but with subclinical neurophysiological changes , especially depression in the voltage of the nerve roots , a statistically significant improvement in the 100 percent of the patients we found.

The significance of this study is that in patients with clinical symptoms of neurological compression output of the segmental roots if there a neurophysiological improve values at very close to normal with the simple distraction of the intervertebral space , , with indirect decompression is probably not justified any additional direct decompression process, while in the opposite case, the direct decompression to the affected segment segment is mandatory.

Neurocirujano

Cirujano de Columna Minimamente Invasiva

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Jeff Katzell

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Jeffrey Katzell, MD is an Orthopaedic Surgeon who has been in practice in Palm Beach County, Florida since 1987. Dr. Katzell earned his medical degree after graduating Magna Cum Laude from Syracuse University. He attended medical school at New York Medical College; and completed a General Surgery Internship and an Orthopaedic Surgery Residency at the University of Medicine and Dentistry of New Jersey. Jeffrey Katzell, MD is currently working on studies in the field of minimally invasive spine and joint surgery.

Jeffrey Katzell, MD is involved in the development and teaching of less invasive techniques to treat spine pathology including decompression and/or stabilization of the spine. He is an advocate of conservative therapies including chiropractic care and physical therapy. Jeffrey Katzell, MD is currently interested in lumbar fusion implant design and instructs surgeons in new less invasive techniques for lumbar fusion surgery.

Dr. Katzell is a frequent lecturer at National and International Spine Surgery Conferences throughout the world. Dr. Katzell was the featured speaker at the World Congress of Minimally Invasive Spine Surgery in Brazil in 2012. Dr. Katzell also teaches and lectures at the AMCICO Congress in Mexico. Dr. Katzell recently was the featured lecturer at the International Intradiscal Therapy Society in Phoenix.

When not lecturing or working, Dr. Katzell enjoys skiing, fishing, golfing, and painting. He resides in Boca Raton, Florida.

Title of abstract :

- Oblique Lumbar Lateral Interbody Fusion Technique

0162

Mohamed Mohi Eldin

Title of abstract :

- Kyphoplasty tips and tricks
- DCI for single level CDD

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Burak ozgur

Title of abstract :

- InFill Lateral System: a novel technique for optimizing graft filling and endplate contact in lumbar interbody fusion surgery

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-Neurosurgery specialist, spine surgery specialist. University of Buenos Aires , Argentina.
-Chairman of Staff Espinal Argentina
-Former President of Interamerican Society for Minimally Invasive Spine Surgery (SICCMI)
-Vicepresident of Argentine Association for Minimally Invasive Spine Surgery.(AACMIC)
-Vicepresident of Argentine Medical Association of Oxygen Ozone Therapy (AMAOO)
-Founder Member of World Federation of Minimal Invasive Spine Surgery (WFMISS)

Title of abstract :

- Interspinous and Interlaminar Spacers: Experience and Considerations

Separadores interespinosos e interlaminares : Experiencia y Consideraciones

Dr. Gabriel O. Calle

Staff Espinal Argentina

Introducción: El abordaje terapeútico de la patología quirúrgica de la columna lumbar ha sufrido una incesante evolución especialmente hacia las distintas técnicas de mínima invasión y mínima agresión . Con este objetivo y en busca de alternativas menos invasivas , agresivas e intentando la mayor preservación de las estructuras espinales y de su biomecánica se han desarrollado una gran cantidad de sistemas que intentan lograr estos objetivos cumpliendo un rol de competencia entre la cirugía convencional y la cirugía de fusión espinal .

Dichos sistemas se han popularizado extremadamente en los últimos años al punto de su sobredimensionamiento y exceso de uso .

Material y Métodos : Se realiza un análisis retrospectivo de los pacientes operados con sistemas de separadores interespinosos e interlaminares en los últimos 8 años (2006/2014). Fueron operados 88 pacientes con estos sistemas y se colocaron un total de 185 prótesis interespinosas de distinto tipo y materiales (titanio,PEEK,silicona).

Follow up : 2 meses a 8 años

Aproximadamente el 40 % de los pacientes especialmente los mas lejanos no se pudieron volver a contactar por distintas razones teniendo en esos casos un folow up mas acotado .

Resultados :

En el presente trabajo se jerarquiza la utilidad y eficacia de las técnicas de preservación del movimiento con reducción del mismo y estabilización espinal mediante la utilización de separadores interespinosos e interlaminares , mediante técnicas mínimamente invasivas y respetuosas de la estructura y biomecánica espinal .

Se realizó la evaluación pre y postoperatoria con escala de VAS y seguimiento en los pacientes que se logró mantener contacto con escala de Owenstry .

El 84% de los pacientes obtuvo una mejoría significativa post-operatoria , el 5% requirió revisión quirúrgica con recambio de sistema o conversión a fusión y el 11% obtuvo una pobre mejoría , 2 casos de infección profunda (uno requirió extracción de sistema) y 5 casos de infección superficial de herida que no produjo complicaciones y 1 caso de migración .

Conclusiones :

Consideramos la utilización racional de los separadores interespinosos e interlaminares como una opción válida a tener en cuenta en varias patologías espinales en las que la fusión sería un exceso y la no estabilización un riesgo futuro de complicaciones , dolor y aceleración del proceso involutivo espondilótico espinal .

Consideramos también una excelente opción en el tratamiento del canal estrecho segmentario moderado y Sd. de incompetencia discal mediante abordaje mínimamente invasivo y muy especialmente en aquellos casos en los cuales la cirugía de fusión está contraindicada por riesgos del paciente.

Se deben continuar los estudios para lograr una mas clara objetivación de los alcances de estas técnicas .

Email Dr. Gabriel Calle : drcalle@staffespinal.com

Interspinous and Interlaminar Spacers: Experience and Considerations.

Gabriel O. Calle, MD.

Introduction: Minimally invasive approaches to lumbar spine surgical pathology have ceaselessly been developed over the years. Thus, a great number of devices have been developed in order to protect spinal structures and maintain biomechanical stability. These minimally invasive systems compete against both conventional and spinal fusion surgeries. Nevertheless, such systems have become so popular over the past few years that they are actually considered overrated and overused.

Material and Methods: A retrospective analysis of patients who underwent implantation of interspinous and interlaminar spacers over the past eight years (2006-2014) was undertaken. Eighty-eight of the patients received the aforementioned spacers. In addition, a total of 185 interspinous spacers of different types and material (titanium, PEEK and silicon) were implanted.

Follow-up: Two months to eight years.

Approximately, 40% of the patients (especially those living further away from the medical facility) did not attend follow-up visits for various reasons. Therefore, follow-up records were limited in such cases.

Results: The aim of this study was to highlight the usefulness and effectiveness of motion preserving techniques which reduce motion and stabilizes the spine using interspinous and interlaminar spacers through minimally invasive techniques that protect spinal structures and maintain biomechanical stability.

A visual analogue scale (VAS) was evaluated pre and postoperatively. Additionally, the Oswestry Disability Index (ODI) was used to assess those patients who did not fail to attend follow-up visits periodically.

Eighty-four per cent of the patients showed significant postoperative recovery, 5% underwent revision surgery to change the existing system or to conduct fusion surgery. Finally, 11% of the patients showed poor postoperative recovery – 2 cases of deep incisional surgical site infection (one of which required removal of the device), 5 cases of superficial incisional surgical site infection with no complications, and one case of migration.

Conclusions: Rational use of interspinous and interlaminar spacers should be considered in such spine pathologies in which fusion surgery would be too much but structure instability would be a risk factor leading to complications, pain and acceleration of spondylosis.

We consider minimally invasive procedures to implant interspinous and interlaminar spacers an excellent choice for the treatment of moderate foraminal stenosis and degenerative disc disease, especially in fusion surgery contraindicated patients.

Research must continue to achieve clearer objectivity regarding the scope of these surgical techniques.

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Roberto Saftic

Pitfalls in lumbar endoscopic decompression: experience and hints

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The learning curve in endoscopic spinal surgery is long. Experience in spinal surgery is first condition. Second think, at the beginning, is acceptance of philosophy of minimal invasive spinal surgery. To achieve more than 90 percent of success we need approximately one hundred operated patients.

My learning curve is divided in three phases. In first phase of practicing endoscopic surgery major problems were positioning of the needle and applying local anesthetic. In second phase problems were in recognizing the anatomical structures and to deal with hemostasis. In third phase major difficulties were proper visualization of neural structures and achieving optimal decompression.

In five years period I have operated 447 transforaminal endoscopic surgeries for lumbar disc herniation. All patients were operated in prone position and local anesthesia with sedation. I have started with" inside-out" approach that over time I start to use "intra-annular" approach combined with "outside-in" technique. First 72 patients were operated in public hospital and success rate was 80 percents. Average operation time was 120 minutes and fluoroscopy exposure more than 100 seconds per surgery. Rests of patients were operated at private clinic. Average operation time was 50 minutes and fluoroscopy exposure was 20 seconds. Success rate was 94 percents. I have two case of foot drop and one case of dural tear. At two years follow up reoperation rate was 8%. Overall success rate was 92 percents.

To achieve good result and to use endoscope with certain amount of confidence I like to divide training period in theoretical phase, practical cadaveric training, practical training with tutor and sufficient period of self performing surgery starting with smaller herniation and simple cases. At the beginning crucial stuff are previous experience with all around spine surgery and awareness of self limitation which will help you to protect yourself and your patient.

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Present Position –

- Co-founder and Director of Advanced Pain Management Services, LLC DBA: American Spine Center with offices in Frederick, Germantown, Waldorf, Columbia, Olney, Hagerstown, Leonardtown, Rockville, MD and Gettysburg, PA.
- Co-founder and Director of American Spine Surgery Center, Frederick, MD, and Advanced Pain Surgery Center, Waldorf, MD
- Founder and Director of Capital Area Surgery Center, Frederick, MD
- Founder and Director of Capital Area Pain Management Associates, Capital Pain Management and Anesthesia Associates, Capital Pain Management Associates, and Northern Virginia Pain Management Associates

Accomplishments –

- Established a Multi-Specialty group in 2009 with 11 offices covering Maryland and Pennsylvania.
- Established an Anesthesia group in 1999 providing Anesthesia services at Civista Medical Center. Functioned as Chairman of Anesthesiology till November 2008.
- Established a Pain Management group in 1999 with four offices covering Maryland, and Virginia.
- Established Capital Area Surgery Center, American Spine Surgery Center, and Advanced Pain Surgery Center and obtained certification with JCAHO and Medicare. AAAASF
- Director of Anesthesia services at Ellicott City Surgery Center, Ellicott City 2006-2007

- Took Civista Medical Center through three JCAHO accreditation cycles with outstanding results.
- Board Certified in Anesthesiology and Board Certified in Pain Management.
- Fellowship trained at Harvard's Brigham and Women's Hospital in Boston.
- Worked at Comprehensive Pain Management Associates and expanded a small practice in six months into a major corporation.
- Chief Resident in Anesthesiology at Hahnemann University Hospital.
- Recipient of Robert Dripps Memorial Award for "Best Resident".
- Trained at AIIMS, New Delhi India in Anesthesiology, one of six physicians chosen across the country

Education –

Education:

July 1983 to December 1988 – M.B.B.S. from University College of Medical Sciences, Delhi University, New Delhi, India.

Postdoctoral Education:

July 1995 to June 1996 – Fellowship in Pain Management at Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115

July 1994 to June 1995 – Chief Resident in Anesthesiology, Hahnemann University Hospital, Broad and Vine Street, Philadelphia, PA 19102

July 1992 to June 1995 – Residency in Anesthesiology at Hahnemann University Hospital, Philadelphia, PA 19102

July 1991 to June 1992 – Internship in Internal Medicine at Hahnemann University Hospital, Philadelphia PA 19102

November 1989 to July 1991 – Prepared for ECFMG and immigration to the United States of America.

January 1989 to November 1989 – Resident in Anesthesiology at All India Institute of Medical Sciences, New Delhi, India**.**

Employment History –

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Professional Licensure –

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Pennsylvania	Medical Physician and Surgeon MD055041L Expiration – 12/31/2014
New Jersey	Medical Doctor (Inactive) 25MA 08747800 Expiration – 06/30/2013
Virginia	Medicine and Surgery (Inactive) 0101052038 Expiration – 05/31/2014
West Virginia	Medicine and Surgery (Inactive) 21999 Expiration – 06/30/2013

Certification –

DEA (MD)	BS6704503 – Expiration 02/28/2015
DEA (PA)	FS3907473 – Expiration 02/29/2016
CDS (MD)	M41544 **–** Expiration 04/30/2014
ECFMG	0-453-605-8 – Issued 06/13/1994
UPIN	G15493
NPI	1821053224
Board Certified	**American Board of Anesthesiology** 05/01/1996 – Indefinite
	American Board of Anesthesiology, added Qualification in Pain Medicine – August 1996; recertified 01/2007 – 12/2016

Languages Spoken – English, Hindi, and Marathi

Professional References – Available upon request

Title of abstract :

- Early evaluation of value based ambulatory endoscopic spine surgery

Title: Early evaluation of value based ambulatory endoscopic spine surgery

Author information: Sandeep Sherlekar, M.D.; Atif B. Malik, M.D.; Pratip Mandal, M.D.; Said Osman, M.D.; Prebhdeep Grewal M.D

Disclaimer:

The views expressed in this submitted article are the authors' own, who represent the American Spine Center MD in Frederick, Maryland USA

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Conflict of interest declaration:

The research reported here was conducted and funded by the American Spine Center, Maryland, USA .The authors have equity ownership and are on the board of directors of this center. No other funding or support was received by any other agency.

Acknowledgements: Mr. N Gemechu (statistician), Ms. N Allen (clinical director), Ms. G Trtyt (OR nurse in-charge), Dr. K. Parmar and Dr. T. Beri and the staff of American Spine.

Abstract:

Background: Chronic spinal pain has been documented as being associated with significant economical and societal health outcomes (6). It is now agreed that surgery improves outcome in two thirds of patients (7). More invasive and complex procedures may have an increased complication rate (8). The medicare payment advisory commission (Med-PAC) acknowledges minimally invasive discectomy as an interventional pain management procedure. Originally described by senior author SO in 1995 (2) these endoscopic or arthroscopic techniques have been innovated and improved to provide discectomies and spinal fusion as a day surgery with a minimally possible risk to the patient. This is a value based option (efficient and effective) for such patients in terms of lower morbidity, higher patient satisfaction rate and lower cost towards treating this condition.

Questions/Purposes: We have attempted to provide an early review of a series of 122 cases operated here. Our secondary purpose is to institute practice checklists for obtaining a higher level of evidence with regard to the procedures performed.

Methods: All patients underwent arthroscopic/ endoscopic spinal procedures at our center which is an exclusively day-surgery oriented center for minimally invasive surgery (MIS) and pain management for the spine. The procedures performed were endoscopic cervical, thoracic and lumbar discectomies and fusions. Spinal instrumentations were performed with another MIS approach. All patients underwent intraoperative neuromonitoring (IONM) . All discectomies were performed under Total Intravenous Anesthesia (TIVA) (5). The surgical team consisted of highly trained and experienced pain management specialists, orthopedic surgeons and neurosurgeons. The pre-operative VAS, Rand SF 36 and Oswestry disability scores were documented for all patients. The same scores were collected 3 months, 6 months and 1 year post-operatively. We have noted improvement in the post-operative scores, showing improved outcomes to the paitent. We have performed a Level 4 study at present setting a baseline for higher level studies in the future.

Results: The VAS and quality of life scores of 122 patients were available and on evaluation show an improvement in VAS, and RandSF 36 and Oswestry disability scores. No intraoperative adverse events were reported. 3 patients did not have an improvement in their VAS and disability scores. Most of the patients were of multiple level disc disease, some having had surgery previously. Single and multiple level discectomies, for those undergoing primary surgery, were performed after a trial of non-operative treatment was performed with limited success, for a period of 6 months at least. All our patients were able to mobilize at home the day after surgery with an early return to a higher level of function. At this moment we have fair evidence that ambulatory endoscopic spine surgery in our facility has been a value based option (lower cost with high quality) for chronic back pain.

References:

1. Udeh BL, Costandi S, Dalton JE, Ghosh R, Yousef H, Mekhail N. The 2- (Udeh BL, 2014 Jan 3)Patients. Pain Pract. 2014 Jan 3. doi: 10.1111/papr.12160. [Epub ahead of print] PubMed PMID: 24393198.
2. Osman SG, Marsolais EB. Endoscopic transiliac approach to L5-S1 disc and foramen. A cadaver study. Spine (Phila Pa 1976). 1997 Jun 1;22(11):1259-63. PubMed PMID: 9201866.
3. Lühmann D, Burkhardt-Hammer T, Borowski C, Raspe H. Minimally invasive surgical procedures for the treatment of lumbar disc herniation. GMS Health Technol Assess. 2005 Nov 15;1:Doc07. PubMed PMID: 21289928; PubMed Central PMCID: PMC3011322.
4. Manchikanti L, Falco FJ, Benyamin RM, Caraway DL, Deer TR, Singh V, Hameed H, Hirsch JA. An update of the systematic assessment of mechanical lumbar disc decompression with nucleoplasty. Pain Physician. 2013 Apr;16(2 Suppl):SE25-54. Review. PubMed PMID: 23615886.
5. Eikaas H, Raeder J. Total intravenous anaesthesia techniques for ambulatory surgery. Curr Opin Anaesthesiol. 2009 Dec;22(6):725-9. doi: 10.1097/ACO.0b013e3283310f6b. Review. PubMed PMID: 19680121.
6. Medicare Payment Advisory Commission Report to the Congress. Paying for interventional Pain Services in the Ambulatory Settings. December 2001
7. Johann Steurer, Alexander Nydegger, Ulrike Held et all. LumbSten: The lumbar spinal stenosis outcome study. BMC Musculoskeletal Disord. 2010; 11: 254. Published onkline 2010 November 2
8. Richard A. Deyo, Sohail K. Mirza, Brook I. Martin, William Kreuter, David C. Goodman, Jeffrey G. Jarvik, Trends, Major Medical Complications, and Charges Associated with Surgery for Lumbar Spinal Stenosis in Older Adults. JAMA. 2010 April 7; 303(13): 1259–1265

Percutaneous Endoscopic Trans-iliac Approach to L5-S1 Disc and Foramen – A Report of Clinical Experience.

Said G Osman, M.D., F.A.A.O.S., F.R.C.S.Ed. (ortho); Sandeep Sherlekar, M.D., Atif Malik M.D., Charles Winters, M.D., F.A.A.N.S.; PK Grewal M.D., Pratip Mandal, M.S, M.D., Nigussie Gemechu, M.S,

Abstract:

Background: The lumbosacral junction is a difficult area for spine surgery because of the complex anatomy. In the era of minimally invasive spine surgery, the presence of a tall iliac wing has, at the level of lumbosacral junction, created a major obstacle in the paths of two of the major approaches, namely, the direct lateral and percutaneous posterolateral endoscopic approaches. While alternative approaches such mini-anterior retroperitoneal, and the pre-sacral approaches are indeed less traumatic than the traditional posterior and anterior approaches, they do involve access through anatomical areas with potentially serious complications.

Purpose: To determine the feasibility of percutaneous, endoscopic trans-iliac, transforaminal, L5-S1 discectomy, foraminal decompression and interbody fusion.

Study Design: Prospective case series study.

Materials and Methods: 15 consecutive patients undergoing trans-iliac approach to L5-S1 disc and foramen were prospectively studied. Pre- and post-operative visual analogue scale (VAS); pre- and post-operative Oswestry Disability Index (ODI); Operating time; intra-operative complications; and intra-operative blood loss were obtained for the study. Indications for surgery included (a) tall iliac wing in 12 patients and; (b) central or paracentral disc herniations in 3 patients. Pre-operative MRI and/or CT scan was used to determine the need for trans-iliac access. The procedure was performed with the patient in prone position and under monitored sedation for decompression. The trans-iliac access was established with a cannulated drill or core drill through the iliac wing. Once the trans-iliac window had been created, the rest of the procedure proceeded as for percutaneous endoscopic transforaminal decompression and fusion.

Results: 15 patients (10 male and 5 female) participated in the study. Mean age was 45 years, and mean follow-up was 10.9 months. The VAS for back and leg pain significantly improved in all patients. The ODI dropped by an average of 46.4% post-operatively (55.3% to 8.9%) . There was statistically significant drop in pre-operative VAS scores for leg and back pain, following trans-iliac decompressions. Blood loss was minimal for decompression (less than 10 ml). Apart from mild post-operative dysasthesia which resolved within 2 weeks in 4 patients, there were no other complications in this short series.

Conclusion: Endoscopic trans-iliac approach to the L5-S1 disc and foramen is feasible and safe in the hands of properly trained surgeon. Decompression can be safely performed via trans-iliac access with minimal blood loss, and in a short operative time. The limitation of the direct lateral approach imposed by the iliac bone is overcome. The risks of trans-canal, retro-peritoneal, and pre-sacral approaches are avoided.

0169

Nizar N.Yatout

Title of abstract :

- Full Endoscopic Interlaminar Lumbar Disectomy: Going beyond the limits

0170

Michael Schubert

Title of abstract :

- Endoscopic transforaminal discectomy for recurrent
- Technique and limitation of Transforminal decompression of lumbar herniated disc

0171

Hulagu Kaptan

Title of abstract :

- Microscopic Unilateral Approach for Bilateral Laminectomy

0172

Martin Knight

Martin Knight trained as an undergraduate and Anatomy Prosector at St Bartholomews Hospital London, gaining postgraduate research experience at the Royal Postgraduate Medical School and orthopaedic training at St Thomas's. In 1984 he undertook a short-term commission in the Royal Navy as a Consultant Orthopaedic Surgeon thereafter returning to NHS Consultant practice in Rochdale, Lancashire where he commenced the pioneering of laser keyhole spinal surgery in 1990. He elaborated this approach in to Transforaminal Endoscopic Lumbar Decompression & Foraminoplasty. This was subjected to repeated audit and prospective clinical analysis and publications up till the present date.

He was appointed as the Medical Director of the Spinal Foundation in 1994 and since that time has concentrated exclusively on the management of patients with spinal disorders. He was awarded an MD at Manchester University in 2003 for his experimental and clinical development Transforaminal Endoscopic Lumbar Decompression & Foraminoplasty and appointed as the translational spinal surgeon for Manchester University

He is currently focused upon the development of advanced endoscopic instrumentation to facilitate several surgical disciplines, the development of stem cell disc reconstruction, the use of Gelstix in the inhibition of internal derangement of intervertebral discs and the development of lumbar transforaminal keyhole surgery, endoscopic cervical surgery and the pain mechanisms responsible for spinal pain defined by aware state patient feedback. To date he has performed over 4,250 Transforaminal Endoscopic Lumbar Decompression & Foraminoplasty and 3,600 Laser Disc Decompression procedures.

Title of abstract :

- The advanced paradigm of aware state Foraminoplasty

0173

Jorge Ramirez

Title of abstract :

- Percutaneous Endoscopic Spine Procedures, Lumbar, Cervical and Thoracic Endoscopic Procedures
- Enfermedad Degenerativa Cervical: Tratamiento Mínimamente Invasivo. 15 Años De Experiencia Personal

0174

Emre Acaroglu

R. Emre Acaroglu MD

Biosketch

2014

Emre R. Acaroglu was born in Ankara Turkey. He earned his MD degree in 1986 and started residency in the Department of Orthopedics and Traumatology in Hacettepe University. Upon completion of the residency in 1991, he worked in the same department as a clinical instructor for one and a half year, and was appointed as an assistant professor in December 1992.

He did his spine fellowship in New York from 1993 to 1994 (Columbia University, directed by Drs. JP Farcy and M Weidenbaum) with a parallel research appointment in the Orthopedic Research Laboratory, directed by Mr. V. Mow PhD.

He earned the title of Associate Professor in 1995, and received tenure in 1996. He became a Full Professor of Orthopedics and Traumatology in 2002. He had spent 15 months in University of California San Francisco from 2003 and 2004 as a sabbatical. He served as the chief of spinal surgery in Hacettepe University Department of Orthopedics and Traumatology till 2009. Currently he is the director of Ankara Spine Center and chief of Orthopedic Spine.

Dr. Acaroglu clinically specializes in Adult and Pediatric Spinal Deformity. He maintains a keen interested in medical education. He had been a member of the EduComm of Eurospine for three years between 2008 and 2011. He is the Orthopedic Education officer of AOSpine EU at this time (3 year term, started July 2013).

His research interest and activities encompass a range of clinical as well as basic research projects. He is an executive member of an international study group that focuses on adult deformity (European Spine Study Group) and has obtained research funding from the European Spine Society in connection with this study group. His research on the

pathogenesis of adolescent idiopathic scoliosis in collaboration with scientists from UCSF and U of Montreal is funded by the SRS and Cotrel Foundation.

Title of abstract :

- The future of Spinal Surgery as a medical subspecialty; Where are we now, what should we expect

0175

Roberto Cantu

Title of abstract :

- Discectomía Lumbar Clásica Vs Discectomía Percutánea

0176

Carlos Drummond

Title of abstract :

- Extrusion Disk Herniation L5-S1 With Caudal Migration. Endoscopy Interlaminar Approach Pitfails

0177

Jose Antonio Soriano

CURRICULUM VITAE

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Nombre: Dr. José Antonio Soriano Sánchez

Fecha de Nacimiento: 14 de Mayo de 1964

Estado Civil: Casado

Nacionalidad: Mexicano

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Recertificación CONACEM Y Consejo Mexicano de Cirugía Neurológica, A.C.

Ocupación Actual: Neurocirujano del Centro Neurológico del Hospital ABC Campus Santa Fe

NOMBRAMIENTOS:

- Jefe de la Clínica de Columna, Centro Neurológico ABC, Hospital ABC 2009-2011
- Coordinador Regional América del Norte, Sociedad Interamericana de Cirugía de columna Mínimamente Invasiva 2007-2009
- Socio Fundador y Miembro Titular, Sociedad Interamericana de Cirugía de columna Mínimamente Invasiva
- Miembro de la Sección de Columna, Sociedad Mexicana de Cirugía Neurológica A.C.
- Vicepresidente de la Sección de Columna de la Sociedad Mexicana de Cirugía Neurológica A.C. 2009-2011
- Presidente del Capítulo de Columna Vertebral de la Federación Latinoamericana de Neurocirugía 2011-2013
- Miembro del Colegio Médico del Centro Médico ABC, A.C.
- Presidente de la Sociedad Interamericana de Cirugía de Columna Mínimamente Invasiva (SICCMI) 2011-2013
- Presidente del Capítulo de Columna de la Sociedad Mexicana de Cirugía Neurológica A.C. 2011-2013
- Secretario de la Asociación Mexicana de Cirujanos de Columna, A.C. 2011-2013
- Miembro Honorario de la Sociedad Venezolana de Neurocirugía 2013
- Miembro Honorario de la Sociedad Chilena de Neurocirugía

ACTIVIDADES ACADEMICAS DURANTE LOS ULTIMOS 5 AÑOS

1RA. REUNION DE LA MESA DIRECTIVA 2008-2009 DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA, A.C. (AMCICO)

- **CIRUGIA DE MINIMA INVASION DE LA COLUMNA LUMBAR**

Profesor. Enero de 2008

Monterrey, Nuevo León, México

(Nacional)

1ER. CURSO INSTRUCCIONAL EN CIRUGIA CERVICAL

Profesor. 15 a 16 de Febrero de 2008

León, Guanajuato, México

(Nacional)

CURSO AVANZADO DE POSTGRADO TEORICO-PRACTICO EN TRAUMA VASCULAR

- **DIAGNOSTICO Y TRATAMIENTO DE LESIONES NERVIOSAS PERIFERICAS**

Profesor. 6 a 8 de Marzo de 2008

Distrito Federal, México

(Nacional)

FACULTY MEMBER AT THE SURGEON MINIMALLY INVASIVE SPINE COURSE

12 de Abril de 2008

Plano, Texas, E.U.

(Internacional)

1ER. SIMPOSIUM INTERNACIONAL CIRUGIA ESPINAL MINIMAMENTE INVASIVA

Conferencista. 28 a 30 de Abril de 2008

La Habana, Cuba

(Internacional)

DISTINGUISHED FACULTY MEMBER OF THE I IBERO AMERICAN FORUM DEPUY 2008

19 a 21 de Junio de 2008

Madrid, España

(Internacional)

4TO. CURSO DE CIRUGIA DE MINIMA INVASION

Profesor. 4 a 5 de Julio de 2008

Cd. Juárez, Chihuahua, México

(Nacional)

IV CURSO TEORICO-PRACTICO Y III CURSO INTERNACIONAL DE ACTUALIDADES EN EL TRATAMIENTO MEDICO Y QUIRURGICO DE LA COLUMNA VERTEBRAL

Profesor. 16 a 18 de Julio de 2008

Distrito Federal, México

(Nacional)

CURSO INSTRUCCIONAL EN CIRUGIA DE COLUMNA TORACICA Y LUMBAR "HOMENAJE AL DR. FORTUNATO REYES HERRERA"

Profesor. 25 a 26 de Julio de 2008

Veracruz, Veracruz, México

(Nacional)

AVANCOS E CONTROVERSIAS EM CIRURGIA DE COLUNA

- **FRATURA POR OSTEOPOROSE DE COLUNA LOMBAR – VERTEBROPLASTIA**
- **ARTRODESE DE COLUNA LOMBAR – ALIF**
- **FIXACAO DINAMICA DA COLUNA LOMBAR – ESPACADORES INTERESPINHOSOS**

Palestrante. 8 de Agosto de 2008

Sao Paulo, Brasil

(Internacional)

CURSO – TALLER. CIRUGIA DE MINIMA INVASION DE COLUMNA LUMBAR

Profesor. 22 a 23 de Agosto de 2008

Monterrey, nuevo León, México

(Nacional)

CONGRESO BRASILEIRO DE CIRURGIA E TECNICAS MINIMAMENTE INVASIVAS DA COLUNA VERTEBRAL

- **FRATURAS POR INSUFICIENCIA DO CORPO VERTEBRAL**
- **FRATURAS POR INSUFICIENCIA DO CORPO VERTEBRAL, CIFOPLASTIA: INDICACOES E COMPLICACOES**
- **CONFERENCIA INTERNACIONAL 8. CIFOPLASTIA COM BALAO A EVIDENCIA**
- **CONFERENCIA INTERNACIONAL 13. EXPERIENCIA COM PARAFUSOS TRANSPENDICULARES COM SISTEMA DE MINIMO ACCESO PATHFINDER – EXPERIENCIA E RESULTADO**

Debator. Mesa Redonda Moderna. Palestrante. Conferencista. 28 a 30 de Agosto de 2008

Gramado, Brasil

(Internacional)

9NO. CONGRESO NACIONAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA, A.C. (AMCICO) 2008

Profesor. 13 a 15 de Septiembre de 2008

Puerto Vallarta, Jalisco, México

(Nacional)

LXIII CONGRESO CHILENO DE NEUROLOGIA, PSIQUIATRIA Y NEUROCIRUGIA – SIMPOSIO: NUEVAS TENDENCIAS EN CIRUGIA DE COLUMNA

- **ENFERMEDAD DEGENERATIVA DE DISCO INTERVERTEBRAL. CONCEPTO ACTUAL**

Conferencista. 29 a 31 de Octubre y 01 de Noviembre de 2008

Viña del Mar, Chile

(Internacional)

X ENCUENTRO NACIONAL ARTE, CULTURA Y ORTOPEDIA AMOT 2008

Profesor. 4 a 8 de Noviembre de 2008

Acapulco, Guerrero, México

(Nacional)

II CURSO INTENSIVO AVANZADO DE CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA VERTEBRAL

Director. 16 a 21 de Noviembre de 2008

Monterrey, Nuevo León, México

(Nacional)

33 CONGRESO LATINOAMERICANO DE NEUROCIRUGIA

- **CIRUGIA DE MINIMO ACCESO LUMBAR: DESCOMPRESION, FUSION E INSTRUMENTACION**
- **ESPACIADORES DINAMICOS EN HERNIA DISCAL Y DOLOR FACETARIO**
- **NUEVOS CONCEPTOS Y FILOSOFIA EN LA CIRUGIA MODERNA DE COLUMNA**

Conferencista. 25 a 30 de Octubre de 2008

Bogotá D. C., Colombia

(Internacional)

CURSO DE CIRUGIA DE COLUMNA VERTEBRAL Y MINIMA INVASION

- **FORAMINOTOMIA CERVICAL POSTERIOR POR MINIMA INVASION**
- **TRATAMIENTO QUIRURGICO MINIMAMENTE INVASIVO DEL CONDUCTO LUMBAR ESTRECHO**
- **TRATAMIENTO DE LA CIRUGIA DEL DISCO CERVICAL DE UNO A DOS SEGMENTOS**

Ponente. 23 de Enero de 2009

Pachuca de Soto, Hidalgo, México

(Nacional)

3A CONFERENCIA CIENTIFICA: RESTAURACION NEUROLOGICA 2009

- **ESPACIADORES INTERESPINOSOS ¿UTILIDAD?**
- **CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA ¿HACIA DONDE VAMOS?**

Ponente. 9 a 13 de Marzo de 2009

La Habana, Cuba

(Internacional)

CURSO DE CIRUGIA DE COLUMNA VERTEBRAL Y MINIMA INVASION DE LA COLUMNA TORACO-LUMBOSACRA

- **CURSO - TALLER**

Profesor. 27 a 28 de Marzo de 2009

Irapuato, Guanajuato, México

(Nacional)

20 CONGRESO DE CIRUGIA NEUROLOGICA

- **TRATAMIENTO DEL CONDUCTO LUMBAR ESTRECHO MEDIANTE LAMINOTOMIA UNILATERAL**
- **DESAYUNO SEMINARIO – TRATAMIENTO DE LA FRACTURA VERTEBRAL COMPRESION POR OSTEOPOROSIS Y NUEVAS TECNOLOGIAS; INDICACIONES Y CONTRAINDICACIONES DEL REFORZAMIENTO VERTEBRAL CON METIL METACRILATO**
- **FILOSOFIA Y CONCEPTOS DE LA CIRUGIA MODERNA**

Profesor. Comentarista. 19 a 24 de Julio de 2009

Cancún, Quintana Roo, México

(Nacional)

III SIMPOSIO INTERNACIONAL

- **CIRUGIA DE COLUMNA VERTEBRAL**

Conferencista. 28 a 30 de Mayo de 2009

Medellín, Colombia

(Internacional)

X CONGRESO NACIONAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA, A.C. (AMCICO)

Profesor. 12 a 15 de Septiembre de 2009

Monterrey, Nuevo León, México

(Nacional)

ADVANCED TECHNIQUES IN LUMBAR & CERVICAL SPINAL SURGERIES DePuy INSTITUTE

- **TECNICAS AVANZADAS EN CIRUGIA LUMBAR Y CERVICAL DePuy INSTITUTE**

Chairman y Miembro. 13 a 14 de Octubre del 2009

Reyham, MA

(Internacional)

III CURSO INTERNACIONAL INTENSIVO AVANZADO DE CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA LUMBAR

Profesor. 21 a 24 de Noviembre de 2009

Distrito Federal, México

(Nacional)

LII CONGRESO CHILENO DE NEUROCIRUGIA – CURSO PRECONGRESO "INSTRUMENTACION DE COLUMNA"

- **MESA REDONDA: ESTABILIZACION DINAMICA DE LA COLUMNA LUMBAR**
- **ESPACIADORES INTERESPINOSOS, LA EVIDENCIA**
- **MESA REDONDA: ESTABILIZACION MINIMAMENTE INVASIVA EN COLUMNA LUMBAR**
- **FIJACION PEDICULAR MINI OPEN**
- **CIFOPLASTIA VERSUS VERTEBROPLASTIA, LA EVIDENCIA**

Expositor. Conferencista. 2 a 5 de Diciembre de 2009

Concepción, Chile

(Internacional)

III CONGRESO INTERAMERICANO DE CIRUGIA MINIMAMENTE INVASIVA

- **MESA REDONDA: ARTRODESIS**

Moderador. Conferencista. 7 a 9 de Diciembre de 2009

Santiago de Chile, Chile

(Internacional)

PRIMER CONGRESO INTERNACIONAL DE CIRUGIA NEUROLOGICA DEL NOROESTE – COLUMNA & CEREBRO

- **TALLER AUDIOVISUAL CIRUGIA MINIMAMENTE INVASIVA EN COLUMNA LUMBAR**
- **CIRUGIA DE COLUMNA MEDICINA BASADA EN EVIDENCIA**
- **CIRUGIA MINIMAMENTE INVASIVA EN COLUMNA: FILOSOFIA, DEFINICIONES Y CONCEPTOS**

Profesor. Ponente. 13 a 15 de Mayo de 2010

Sinaloa, México

(Nacional)

LA FEDERACION MEXICANA DE MEDICOS Y PERITOS EN CIENCIAS FORENSES, A.C. 4TO. CURSO DE ACTUALIZACION "TEMAS SELECTOS EN NEUROLOGIA Y NEUROLOGIA"

Profesor. 18 a 21 de Mayo de 2010

Distrito Federal, México

(Nacional)

II COMINCO – CONGRESSO BRASILEIRO DE CIRURGIA E TECNICAS MINIMAMENTE INVASIVAS DA COLUNA VERTEBRAL

- **CONCEPTOS Y APLICACIONES DEL ACCESO TUBULAR EN CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA**

Conferencista. Congresista. 21 a 24 de Agosto de 2010

Sao Paulo, Brasil

(Internacional)

SOCIEDAD LATINOAMERICANA DE ORTOPEDIA Y TRAUMATOLOGIA, COLEGIO MEXICANO DE ORTOPEDIA Y TRAUMATOLOGIA, A.C., 1ERA. REUNION INTERNACIONAL SOBRE

AVANCES EN CIRUGIA MINIMA INVASIVA, XV CONGRESO REGIONAL SLAOT, XI CURSO INTERNACIONAL DE HOMBRO Y CODO

Profesor. 31 de Agosto a 03 de Septiembre de 2010

Cancún, México

(Nacional)

XI CONGRESO NACIONAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA, A.C. (AMCICO)

Profesor. 12 a 15 de Septiembre de 2010

Acapulco, México

(Nacional)

SIMPOSIO INTERNACIONAL FRACTURA VERTEBRAL POR OSTEOPOROSIS – SOCIEDAD DE NEUROCIRUGIA DE CHILE

- **VERTEBRO VERSUS CIFOPLASTIA. LA EVIDENCIA**
- **ESTRATEGIAS PARA EVITAR COMPLICACIONES EN LA CIFLOPLASTIA**
- **FRACTURA VERTEBRAL POR OSTEOPOROSIS**

Expositor. 13 de Octubre de 2010

Santiago de Chile, Chile

(Internacional)

34° CONGRESO LATINOAMERICANO DE NEUROCIRUGIA

Congresista. 23 a 28 de octubre de 2010

El Salvador, El Salvador

(Internacional)

FUNDACION ACADEMIA AESCULAP MEXICO, A.C.

- **CONCEPTOS ACTUALES EN CIRUGIA DE COLUMNA**

Profesor. 28 a 29 de Octubre de 2010

Distrito Federal, México

(Nacional)

ONE MEDTRONIC MEXICO – TECNOLOGICO DE MONTERREY

- **ACTUALIZACIONES EN TRATAMIENTOS DE PATOLOGIA DE LA COLUMNA Y NEUROMODULACION**

Ponente y Organizador. 22 a 24 de Noviembre de 2010

Monterrey, México

(Nacional)

IX CURSO INTERNACIONAL DE CIRUGIA MINIMA INVASIVA Y ENDOSCOPIA DE COLUMNA

Ponente. 24 a 27 de Noviembre de 2010

Morelia, México

(Nacional)

IV CONGRESO DE LA SOCIEDAD INTERAMERICANA DE CIRUGIA DE COLUMNA MINIMAMENTE INVASIVA (SICCMI)

- **CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA VERTEBRAL – DEFINICIONES, CONCEPTO Y APLICACIONES ACTUALES**
- **PROPUESTA DE ALGORITMO DE TRATAMIENTO QUIRURGICO MINIMAMENTE INVASIVO DE LA ENFERMEDAD DEL DISCO ADYACENTE EN LA COLUMNA LUMBAR**

Conferencista. 11 a 14 de Mayo de 2011

Cartagena de indias, Colombia

(Internacional)

I CONGRESO LATINO Y III CONGRESO VENEZOLANO DE COLUMNA Y MEDULA ESPINAL

- **FILOSOFIA, DEFINICION Y CONCEPTOS FUNDAMENTALES DE LA CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA VERTEBRAL**

- **CONCEPTOS Y ESTRATEGIAS AVANZADAS DE FUSION LUMBAR MINIMAMENTE INVASIVA**
- **ACCESO TUBULAR EN CIRUGIA MINIMAMENTE INVASIVA: CONCEPTOS Y APLICACIONES**

Conferencista. Expositor. 25 a 28 de Mayo de 2011

Isla de Margarita, Venezuela

(Internacional)

XII CONGRESO ANUAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA (AMCICO)

- **ESTADO DEL ARTE DE LA CIRUGIA ENDOSCOPICA Y MINIMA INVASION EN MEXICO**

Conferencista. 22 a 25 de Junio de 2011

Cancún, México

(Nacional)

XII CONGRESO NACIONAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA (AMCICO) – XXIV CONGRESO DE LA INTERNATIONAL INTRADISCAL THERAPY SOCIETY (IITS)

- **CIRUGIA VERTEBRAL POR MINIMA INVASION**

Expositor. 23 a 25 de Junio de 2011

Cancún, México

(Nacional)

XII CONGRESO MEXICANO DE CIRUGIA NEUROLOGICA

- **COORDINADOR DEL CURSO PRECONGRESO**
- **TALLER TEORICO-PRACTICO EN CADAVER**
- **TALLER DE CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA LUMBAR**
- **MISS, TLIF TEORIA**
- **MISS, TLIF, PRACTICA**
- **TORNILLOS PERCUTANEOS VIPER: PRACTICA**
- **CONCEPTO Y APLICACIONES DEL ACCESO TUBULAR EN CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA VERTEBRAL**
- **CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA VERTEBRAL: FILOSOFIA, LIMITE Y LIMITACIONES**

- **TRATAMIENTO QUIRURGICO MINIMAMENTE INVASIVO DE LA ESTENOSIS DEL CANAL LUMBAR: ALGORITMO BASADO EN EVIDENCIA**
- **COLUMNA: ESTADO DEL ARTE**
- **CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA LUMBAR**
- **REUNION DE LA SECCION DE COLUMNA: ENFOQUES DIVERSOS EN CIRUGIA DE COLUMNA**
- **UTILIDAD DE LA TECNOLOGIA EN LA CIRUGIA DE COLUMNA**
- **REUNION DE LA SECCION DE COLUMNA: ENFOQUES DIVERSOS EN CIRUGIA DE COLUMNA**

Coordinador. Profesor. Secretario. 16 a 22 de Junio de 2011

Acapulco, México

(Nacional)

SOCIEDAD MEXICANA DE ENDOSCOPIA DE COLUMNA, A.C.

- **FIJACION DINAMICA – ABORDAJES TUBULARES Y CIRUGIA PERCUTANEA ENDOSCOPICA DE COLUMNA MINIMA INVASIVA**

Profesor. 28 de Septiembre a 01 de Octubre de 2011

Distrito Federal, México

(Nacional)

SECRETARIA DE MARINA – ARMADA DE MEXICO

- **VERTEBROPLASTIA VS CIFOPLASTIA**

Conferencista. 18 de Octubre de 2011

Distrito Federal, México

(Nacional)

V CURSO INTERNACIONAL PRACTICO INTENSIVO DE TECNICAS AVANZADAS DE CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA LUMBAR

Ponente. 23 de Noviembre de 2011

Guadalajara, México

(Internacional)

X CURSO INTERNACIONAL DE CIRUGIA MINIMA INVASIVA Y ENDOSCOPICA DE COLUMNA

- **LA IMPORTANCIA DEL CONOCIMIENTO DE LA ANATOMIA MICROQUIRURGICA Y RADIOLOGICA EN CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA LUMBAR**

Conferencista. 30 de Noviembre a 03 de Diciembre de 2011

Oaxaca, México

(Internacional)

XIV CONGRESO INTERNACIONAL AVANCES EN MEDICINA – HOSPITAL CIVIL 2012

- **MODULO CIRUGIA: CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA VERTEBRAL**

Conferencista. Profesor. 23 a 25 de Febrero de 2012

Guadalajara, México

(Internacional)

XIV CONGRESO INTERNACIONAL AVANCES EN MEDICINA – HOSPITAL CIVIL 2012 – CURSO TRANSCONGRESO TEORICO-PRACTICO DE CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA VERTEBRAL

- **TLIF MINIMAMENTE INVASIVO**
- **FILOSOFIA Y CONCEPTOS BASICOS DE CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA VERTEBRAL**
- **LOGISTICA EN CADAVER LAB ESTACION NO. 1, TLIF**
- **LOGISTICA EN CADAVER DEMO, XLIF**

Profesor. Instructor. Profesor. 23 a 25 de Febrero de 2012

Guadalajara, México

(Internacional)

35° CONGRESO LATINO-AMERICANO DE NEUROCIRUGIA – CLAN2012

- **CONCEPTOS Y FILOSOFIA DE LA CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA**
- **ESPONDILOLISTESIS DE BAJO GRADO**
- **TRATAMIENTO PERCUTANEO DE LAS FRACTURAS OSTEOPOROTICAS**

Disertante. 31 de Marzo a 05 de Abril de 2012

Río de Janeiro, Brasil

(Internacional)

XVII CONGRESO DE LA SOCIEDAD ESPAÑOLA DE NEUROCIRUGIA

FILOSOFIA Y CONCEPTOS Y DEFINICIONES – OPINION DEL EXPERTO: CIRUGIA MODERNA DEL RAQUIS

- **EL ALGORITMO DE LA ESTENOSIS DE CANAL DEGENERATIVA – SESION CIENTIFICA OFICIAL X: AVANCES EN CIRUGIA MINIMAMENTE INVASIVA DEL RAQUIS**

Ponente. 09 a 12 de Mayo de 2012

Las Palmas de Gran Canaria, España

(Internacional)

CONTROVERSIAS EN TRATAMIENTOS DE PATOLOGIA DE COLUMNA LUMBAR – CLINICA DE FRACTURAS Y ORTOPEDIA, INSTITUTO DuPuyTren

- **HERNIAS DE DISCO LUMBARES. ARTRODESIS MINIMA INVASIVA**

Disertante. 18 a 19 de Mayo de 2012

Mar Del Plata, Buenos Aires, Argentina

(Internacional)

XIII CONGRESO DE LA ASOCIACION MEXICANO DE CIRUJANOS DE COLUMNA (AMCICO) – CONTROVERSIAS EN CIRUGIA DE COLUMNA VERTEBRAL

- **IMPORTANCIA DE LA ANATOMIA MICROQUIRURGICA EN CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA**
- **CONTROVERSIAS EN FRACTURAS DE COLUMNA**
- **TALLER EN CADAVER - TECNICAS DE MINIMA INVASION**

Coordinador. Moderador. Instructor. 20 a 23 de Junio de 2012

Guadalajara, Jalisco, México

(Internacional)

XIII CONGRESO DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA (AMCICO) – CONTROVERSIAS EN CIRUGIA DE COLUMNA VERTEBRAL EN CONJUNTO CON LA SOCIEDAD INTERAMERICANA DE CIRUGIA DE COLUMNA MINIMAMENTE INVASIVA (SICCMI)

- **DISCOGRAFIA LUMBAR, EL ESTATUS QUO – PLANTEAMIENTO Y RESUMEN DEL PROBLEMA**
- **OZONOTERAPIA INTRADISCAL LUMBAR: MBE – PLANTEAMIENTO Y RESUMEN DEL PROBLEMA**
- **XLIF VS TLIF MINIMAMENTE INVASIVO, EN ANTEROLISTESIS DE BAJO GRADO L4-L5, PLANTEAMIENTO Y RESUMEN DEL PROBLEMA**
- **TRATAMIENTO MINIMAMENTE INVASIVO DE LA MIELOPATIA ESPONDILOTICA CERVICAL**
- **MESA DE DEBATE: EL FUTURO DE LA CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA**
- **INSTRUCTOR DE TALLER EN CADAVER: CIRUGIA POR MINIMO ACCESO LUMBAR Y CIFOPLASTIA – TECNICA DE MINIMA INVASION**

Ponente. Coordinador. 20 a 23 de Junio de 2012

Guadalajara, Jalisco, México

(Internacional)

XVII CONGRESO DE LA SOCIEDAD DE CIRUGIA NEUROLOGICA DE OCCIDENTE

- **ALGORITMO DE TRATAMIENTO MINIMAMENTE INVASIVO DE LA ESTENOSIS DEL CANAL LUMBAR**
- **TLIF MINIMAMENTE INVASIVO**
- **MINIMA INVASION EN C1-C2**

Ponente. 18 a 21 de Julio de 2012

Nuevo Vallarta, Nayarit, México

(Internacional)

III WORLD CONGRESS OF MINIMALLY INVASIVE SPINE SURGERY & TECHNIQUES (III WCMISST)

- **MISS TLIF: ANATOMY OF THE MICROSURGICAL TUBULAR ACCESS**
- **TRANS-SACRAL FUSION L5-S1: MISS PHILOSOPHY AND CONCEPTS: SICCMI PROJECT**
- **THE TEACHING OF MINIMALLY INVASIVE SPINE SURGERY IN LATIN AMERICA**
- **MINIMALLY INVASIVE SPINE FUSION: THE CURRENT CONCEPT**
- **MODERN ROUND TABLE – LUMBAR II - DEBATOR**

Ponente. 16 a 18 de Agosto de 2012

Praia Do Forte, Bahia, Brazil

(Internacional)

LIV CONGRESO NACIONAL DE LA SOCIEDAD VENEZOLANA DE CIRUGIA ORTOPEDICA Y TRAUMATOLOGIA - DR. RAFAEL RAMON CARTA "NUEVAS FRONTERAS EN TRAUMATOLOGIA"

- **TLIF MINIMAMENTE INVASIVO**
- **FIJACION LUMBAR CON CIRUGIA MINIMAMENTE INVASIVA: CONCEPTO ACTUAL**
- **EVOLUCION DE LA CIRUGIA MINIMAMENTE INVASIVA**

Conferencista. 11 a 14 de Septiembre de 2012

Valencia, Venezuela

(Internacional)

SOCIEDAD MEXICANA DE CIRUGIA NEUROLOGICA, A.C.

- **EVOLUCION DE LA CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA. SIGNIFICADO DE LA PALABRA "MINIMAMENTE". EL CONCEPTO DE ACCESO TUBULAR MICROQUIRURGICO**
- **TRATAMIENTO MICROQUIRURGICO TUBULAR DE LA ESPONDILOLISTESIS LUMBAR DE BAJO GRADO**
- **ACCESOS TUBULARES MICROQUIRURGICOS EN CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA**

Ponente. Coordinador. 21 de Septiembre de 2012

Distrito Federal, México

(Nacional)

SOCIEDAD MEXICANA DE ENDOSCOPIA DE COLUMNA, A.C.

- **ARTRODESIS CON CAJAS PERCUTANEAS Y TORNILLOS FACETARIOS**
- **FIJACION DINAMICA**
- **ABORDAJES TUBULARES Y CIRUGIA PERCUTANEA ENDOSCOPICA CERVICAL Y LUMBAR**

Profesor. 26 a 29 de Septiembre de 2012

Distrito Federal, México

(Nacional)

SOCIEDAD MEXICANA DE CIRUGIA NEUROLOGICA, A.C. – "VII CONGRESO INTERNACIONAL NEUROCIRUGIA DEL SIGLO XXI" – "V CONGRESO INTERNACIONAL TOPICOS SELECTOS EN NEUROCIRUGIA"

- **TRATAMIENTO MECANICO MINIMAMENTE INVASIVO DE LA ENFERMEDAD FACETARIA SINTOMATICA EN PACIENTES JOVENES**
- **ALGORITMO DE TRATAMIENTO MINIMAMENTE INVASIVO DE LA ATEROLISTESIS LUMBAR DE BAJO GRADO**
- **LAMINOPLASTIA CERVICAL MINIMAMENTE INVASIVA**

Profesor. Ponente. 07 al 10 de Noviembre de 2012

León, Guanajuato, México

(Nacional)

VI CURSO INTERNACIONAL PRACTICO INTENSIVO DE TECNICAS AVANZADAS DE CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA LUMBAR

Director Titular. 17 al 21 de Noviembre de 2012

Guadalajara, México

(Internacional)

Xi CURSO INTERNACIONAL DE CIRUGIA MINIMA INVASIVA Y ENDOSCOPIA DE COLUMNA

- **SOCIEDAD INTERAMERICANA DE CIRUGIA DE COLUMNA MINIMAMENTE INVASIVA (SICCMI)**

Conferencista. 5 al 6 de Diciembre del 2012

Tuxtla Gutiérrez, Chiapas, México

(Internacional)

1ER. CONFERENCIA INTERNACIONAL EN NEUROCIENCIAS: NUEVAS TECNICAS NEUROQUIRURGICAS Y SISTEMAS DE NAVEGACION

- **DOLOR LUMBAR I : OPCIONES DE MINIMA INVASION**

Conferencista. 22 a 23 de Marzo del 2013

Morelia, Michoacán, México

(Internacional)

IV CONGRESO VENEZOLANO Y II LATINOAMERICANO DE COLUMNA Y MEDULA ESPINAL – CONGRESO Y CURSO PRECONGRESO

- **PALABRA MINIMAMENTE, CLAVE PARA ENTENDER EL CONCEPTO DE CIRUGIA MINIMAMENTE INVASIVA**
- **COMO APLICAR EL CONCEPTO DE ACCESO TUBULAR MICRO-QUIRURGICO AL TRATAMIENTO DE LA HERNIACION DE DISCO LUMBAR**
- **TLIF MINIMAMENTE INVASIVO: TECNICA Y MICRO-ANATOMIA DEL ACCESO QUIRURGICO TUBULAR. MEDICINA BASADA EN EVIDENCIA**
- **PRESENTACION DE CASOS – MISS Y DEGENERATIVA**
- **DISCUSION DE CASO – MISS Y DEGENERATIVA**
- **TECNICAS DE PALMER Y HATTA EN DESCOMPRESION LUMBAR BILATERAL: MICRO-ANATOMIA QUIRURGICA. EXPERIENCIA PERSONAL Y MEDICINA BASADA EN EVIDENCIA**
- **ACCESO TUBULAR MICRO-QUIRURGICO EN CIRUGIA DE COLUMNA CERVICAL**
- **CIRUGIA MINIMAMENTE INVASIVA DE C1-C2, PERSPECTIVA ACTUAL**
- **CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA LUMBAR: PERSPECTIVA HISTORICA CON EJEMPLOS QUIRURGICOS**
- **TRATAMIENTO BIOMECANICO MINIMAMENTE INVASIVO DE LA ENFERMEDAD FACETARIA SINTOMATICA EN EL ADULTO JOVEN**

Conferencista. 27 a 31 de Mayo del 2013

Isla de Margarita, Venezuela

(Internacional)

XIV CONGRESO ANUAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA (AMCICO)

- **SIGNIFICADO DE LA PALABRA “MINIMAMENTE” EN CIRUGIA DE COLUMNA**
- **ACCESOS TUBULARES MICROQUIRURGICOS EN CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA**
- **TLIF MINIMAMENTE INVASIVO**
- **FUSION LUMBAR MINIMAMENTE INVASIVA. EL CONCEPTO ACTUAL.**
- **LA ENSEÑANZA DE LA CIRUGIA MINIMAMENTE INVASIVA EN LATINOAMERICA**
- **TECNICAS DE MINIMA INVASION EN EL CONDUCTO LUMBAR ESTRECHO DEGENERATIVO**
- **TRABAJO LIBRE: CIRUGIA MINIMAMENTE INVASIVA: ACCESO EXTREMO LATERAL, EXPERIENCIA Y RESULTADOS PRELIMINARES**
- **TRABAJO LIBRE: PRECISION DE LOS TORNILLOS TRANSPEDICULARES GUIADOS POR IMAGEN**
- **TRABAJO LIBRE: TLIF MINIMAMENTE INVASIVO. RESULTADOS**
- **FUSION INTERSOMATICA TRANSFORAMINAL LUMBAR MINIMAMENTE INVASIVA**

- **EL CONCEPTO DE "DESCOMPRESION INDIRECTA DEL FORAMEN LUMBAR ESTENOTICO**

Profesor. Conferencista. 25 al 29 de Junio del 2013

Mérida, Yucatán, México

(Internacional)

XXII CONGRESO MEXICANO DE CIRUGIA NEUROLOGICA

CURSO PRECONGRESO: CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA VERTEBRAL: EL ABC

- **SIGNIFICADO DE LA PALABRA "MINIMAMENTE" EN CIRUGIA DE COLUMNA**
- **ACCESOS TUBULARES MICROQUIRURGICOS EN CIRUGIA MINIMAMENTE INVASIVA DE COLUMNA**
- **TLIF MINIMAMENTE INVASIVO**
- **FUSION LUMBAR MINIMAMENTE INVASIVA. EL CONCEPTO ACTUAL.**
- **LA ENSEÑANZA DE LA CIRUGIA MINIMAMENTE INVASIVA EN LATINOAMERICA**
- **ACCESOS TUBULARES MICROQUIRURGICOS EN CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA CERVICAL**
- **LAMINOPLASTIA MINIMAMENTE INVASIVA CON ARTRODESIS DE SEGMENTOS INESTABLES**
- **CIRUGIA MINIMAMENTE INVASIVA EN MIELOPATIA ESPONDILOTICA CERVICAL**
- **ACCESOS TUBULARES MICROQUIRURGICOS EN LA COLUMNA CERVICAL**
- **INTRODUCCION: EL CONCEPTO ACTUAL DE FUSION MINIMAMENTE INVASIVA**

Conferencista. 13 al 19 de Julio de 2013

Ixtapa Zihuatanejo, Guerrero, México

(Internacional)

ASOCIACION COLOMBIANA DE NEUROCIRUGIA

V SIMPOSIO INTERNACIONAL DE COLUMNA

- **FUSION LUMBAR MINIMAMENTE INVASIVA. EL CONCEPTO ACTUAL.**
- **TLIF MINIMAMENTE INVASIVO**
- **ABORDAJE EXTREMO LATERAL TRANS-PSOAS**
- **EL CONCEPTO DE DESCOMPRESION INDIRECTA DEL FORAMEN LUMBAR ESTENOTICO**

Conferencista. 01 al 03 de Agosto de 2013

Cali, Colombia

(Internacional)

SOCIEDAD INTERAMERICANA DE CIRUGIA DE COLUMNA MINIMAMENTE INVASIVA (SICCMI)

V CONGRESO: PRESENTE Y FUTURO DE LA CIRUGIA MINIMAMENTE INVASIVA

- **BIENVENIDA Y PRESENTACION DEL PROGRAMA CIENTIFICO**
- **CONFERENCIA PRESIDENCIAL SICCMI**
- **CLAUSURA DEL CONGRESO**

Presidente. 04 al 07 de Diciembre de 2013

Guanajuato, Guanajuato, México

(Internacional)

THE JAMAICAN ORTHOPAEDIC ASSOCIATION AND THE CARIBBEAN NEUROLOGICAL ASSOCIATION in conjunction with DEPARTMENT OF SURGERY, UWI

1ST JOINT ORTHOPAEDIC NEUROSCIENCES SYMPOSIUM

- **MIS TUBULAR TLIF = MICROSURGICAL ANATOMY AND COMPARATIVE RESULTS AMONG UNILATERAL VS. BILATERAL TRANSPEDICULAR STABILIZATION**
- **"MINIMALLY" = KEYWORD TO UNDERSTAND THE MISS CONCEPT**

Conferencista. 30 de Enero al 02 de Febrero de 2014

Montego Bay, Jamaica

(Internacional)

ASISTENCIA A CONGRESOS Y CURSOS

SPINEWEEK 2008

26 a 31 de Mayo de 2008

Ginebra, Suiza

(Internacional)

CONGRESSO BRASILEIRO DE CIRURGIA E TECNICAS MINIMAMENTE INVASIVAS DA COLUNA VERTEBRAL

28 a 30 de Agosto de 2008

Gramado, Brasil

(Internacional)

9NO. CONGRESO NACIONAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA (AMCICO) 2008

13 a 15 de Septiembre de 2008

Puerto Vallarta, Jalisco, México

(Nacional)

CURSO-TALLER DE LA PROTESIS DE DISCO CERVICAL P.C.M.

02 de Octubre de 2008

Distrito Federal, México

(Nacional)

33 CONGRESO LATINOAMERICANO DE NEUROCIRUGIA

26 a 30 de Octubre de 2008

Bogotá, D.C., Colombia

(Internacional)

CURSO DE CIRUGIA DE COLUMNA VERTEBRAL Y MINIMA INVASION

Asistente. 23 de Enero de 2009

Pachuca de Soto, Hidalgo, México

(Nacional)

TALLER EDUCATIVO: TECNICAS DE MINIMA INVASION EN COLUMNA

ENFERMEDAD DISCAL DEGENERATIVA Y TALLER DISC-FX

Participante. 13 de Febrero de 2009

Bogotá, D. C., Colombia

(Internacional)

3° CONFERENCIA CIENTIFICA: RESTAURACION NEUROLOGICA 2009

Asistente. 9 a 13 de Marzo de 2009

La Habana, Cuba

(Internacional)

20 CONGRESO DE CIRUGIA NEUROLOGICA

Asistente. 19 a 24 de Julio de 2009

Cancún, Quintana Roo, México

(Nacional)

SCIENTIFIC SYMPOSIUM: NOVEL OSTEOBIOLOGIC APPROACHES IN REGENERATIVE MEDICINE VIP PROGRAM (SIMPOSIO CIENTIFICO: ALCANCES OSTEOBIOLOGICOS ACTUALES EN MEDICINA REGENERATIVA)

Asistente. 27 a 28 de Agosto de 2009

Eatontown, Nueva Jersey, Estados Unidos

(Internacional)

PROGRAMA: MEDTRONIC SPINE ACADEMIA, "NUEVAS TECNOLOGIAS EN CIRUGIA DE COLUMNA"

Participante. 12 de Septiembre de 2009

Monterrey, Nuevo León, México

(Nacional)

X CONGRESO NACIONAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA (AMCICO) 2009

Congresista. 12 a 15 de Septiembre de 2009

Monterrey, Nuevo León, México

(Nacional)

EUROSPINE 2009

Congresista. 21 a 24 de Octubre de 2009

Brucelas, Bélgica

(Internacional)

NASS (NORTH AMERICAN SPINE SOCIETY) 24TH ANNUAL MEETING

Asistente. 10 a 14 de Noviembre de 2009

San Francisco, California, Estados Unidos

(Internacional)

CONGRESSO BRASILEIRO DE CIRURGIA E TECNICAS MINIMAMENTE INVASIVAS DA COLUNA VERTEBRAL

Asistente. 21 a 24 de Agosto de 2010

Sao Paulo, Brasil

(Internacional)

DePuy: II ADVANCED TECHNIQUES IN LUMBAR & CERVICAL SPINAL SURGERIES DePuy INSTITUTE

Chairman. 23 a 24 de Agosto de 2010

Raynham, MA

(Internacional)

XI CONGRESO NACIONAL DE LA ASOCIACION MEXICANA DE CIRUJANOS DE COLUMNA, A.C. (AMCICO)

Asistente. 12 a 15 de Septiembre de 2010

Acapulco, México

(NACIONAL)

DePuy: VII ADVISORY PANEL MEETING

Distinguished Advisory Panel Member

2 a 3 de Octubre de 2010

Raynham, MA

(Internacional)

IV CURSO INTERNACIONAL PRACTICO INTENSIVO DE TECNICAS AVANZADAS DE CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA LUMBAR

Director Titular. Noviembre 2010

Monterrey, México

(Internacional)

9TH ANNUAL CARIBBEAN NEUROSCIENCES SYMPOSIUM

Asistente. 25 a 30 de Enero de 2011

Montego Bay, Jamaica

(Internacional)

DePuy: VIII LATIN AMERICAN FORUM 2011

01 a 03 de Abril de 2011

Distrito Federal, México

(Internacional)

IV CONGRESO SOCIEDAD INTERAMERICANA DE CIRUGIA DE COLUMNA MINIMAMENTE INVASIVA (SICCMI)

Asistente. 11 a 14 de Mayo de 2011

Cartagena de Indias, Colombia

(Internacional)

V CURSO INTERNACIONAL PRACTICO INTENSIVO DE TECNICAS AVANZADAS DE CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA LUMBAR

Director Titular. 23 de Noviembre de 2011

Guadalajara, México

(Internacional)

HYDRODISCECTOMY PHYSICIAN TRAINING LAB

Asistente. 21 de Abril de 2012

Boston, Estados Unidos

(Internacional)

XVII CONGRESO DE LA SOCIEDAD ESPAÑOLA DE NEUROCIRUGIA

- **VASCULAR**
- **NUEVAS INDICACIONES EN NEUROMODULACION QUIRURGICA CEREBRAL**
- **RAQUIS**

Asistente. 09 a 12 de Mayo de 2012

Las Palmas de Gran Canaria, España

(Internacional)

CONTROVERSIAS EN TRATAMIENTOS DE PATOLOGIA DE COLUMNA LUMBAR – CLINICA DE FRACTURAS Y ORTOPEDIA, INSTITUTO DePuyTren

Asistente. 18 a 19 de Mayo de 2012

Mar del Plata, Buenos Aires, Argentina

(Internacional)

AMENDIA – PRACTICA DE CADAVER

Asistente. 03 de Agosto de 2012

San Diego, California, Estados Unidos

(Internacional)

LIV CONGRESO NACIONAL DE LA SOCIEDAD VENEZOLANA DE CIRUGIA ORTOPEDICA Y TRAUMATOLOGIA - DR. RAFAEL RAMON CARTA "NUEVAS FRONTERAS EN TRAUMATOLOGIA"

Asistente. 11 a 14 de Septiembre de 2012

Valencia, Venezuela

(Internacional)

SOCIEDAD MEXICANA DE CIRUGIA NEUROLOGICA, A.C. – "VII CONGRESO INTERNACIONAL NEUROCIRUGIA DEL SIGLO XXI" – "V CONGRESO INTERNACIONAL TOPICOS SELECTOS EN NEUROCIRUGIA"

- **TECNICA DE MINIMA INVASION EN COLUMNA CERVICAL: ESTRATEGIA QUIRURGICA PARA TUMORES, TRAUMA Y PATOLOGIA COMPLEJA ESPINAL**

Asistente. 07 al 10 de Noviembre de 2012

León, Guanajuato, México

(Nacional)

VI CURSO INTERNACIONAL PRACTICO INTENSIVO DE TECNICAS AVANZADAS DE CIRUGIA MINIMAMENTE INVASIVA DE LA COLUMNA LUMBAR

Director Titular. 17 al 21 de Noviembre de 2012

Guadalajara, México

(Internacional)

PROJECT POSTERIOR X PRIMARY USER GROUP DINNER & LAB

Faculty. 15 de Marzo de 2013

Memphis, Tennesse, Estados Unidos

(Internacional)

VII CONGRESO CENTROAMERICANO DE NEUROCIRUGIA

Faculty. 16 a 22 de Marzo de 2013

San José, Costa Rica

(Internacional)

NEW TECHNOLOGY TRAINING

Asistente. 31 de Marzo a 02 de Abril de 2013

Los Angeles, California, Estados Unidos

(Internacional)

AMERICAN ASSOCIATION OF NEUROSURGEONS, 81ST ANNUAL MEETING

Asistente. 27 de Abril a 01 de Mayo del 2013

New Orleans, Louisiana, Estados Unidos

(Internacional)

TECNICAS QUIRURGICAS PARA CIRUGIA DE MINIMA INVASION EN COLUMNA VERTEBRAL

Asistente. 29 a 31 de Agosto del 2013

San Francisco, California, Estados Unidos

(Internacional)

XV WFNS WORLD CONGRESS OF NEUROSURGERY 2013

Asistente. 13 a 15 de Septiembre de 2013

Seúl, Corea

(Internacional)

EUROSPINE 2013

Asistente. 02 a 04 de Octubre de 2013

Liverpool, United Kingdom

(Internacional)

LIVE AXIALIF CASE OBSERVATION / BAXANO

Asistente. 23 a 25 de Octubre de 2013

New Orleans, Louisiana, Estados Unidos

(Internacional)

MOTION PRESERVATION, ADULT SCOLIOSIS MANAGEMENT & MIS COURSE

SPINEART ACADEMY

Asistente. 27 de Abril a 01 de Marzo de 2014

Las Vegas, Nevada, Estados Unidos

(Internacional)

PARTICIPACION COMO PROFESOR UNIVERSITARIO

UNIVERSITY HOSPITAL OF THE WEST INDIES. THE DIVISION OF NEUROSURGERY. 9TH ANNUAL CARIBBEAN NEUROSCIENCES SYMPOSIUM. ENERO 2008

UNIVERSIDAD ANAHUAC, PROFESOR INVITADO A EXAMEN PROFESIONAL, FASE PRACTICA, GENERACION JULIO 2008

PROFESOR HONORARIO CENTRO MEDICO "LA RAZA" I.M.S.S. 2008

UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO. PROFESOR ACADEMICO, CURSO UNIVERSITARIO DE ORTOPEDIA, CICLO ESCOLAR 2009-2010

INSTITUTO NACIONAL DE NEUROLOGIA Y NEUROCIRUGIA "MANUEL VELASCO SUAREZ", PROFESOR DEL 2DO. CURSO PARA MEDICO RESIDENTES EN POSGRADO DE CIRUGIA DE COLUMNA VERTEBRAL, AGOSTO 2011-ENERO 2012

ARTICULOS PUBLICADOS

AUTOMATED NUCLEOTOMY AND NUCLEOLYSIS WITH OZONE

A.Alexander/Advances in Minimally Invasive Surgery and Therapy for Spine and Nervers, Acta Neurochirurgica Supplementum 108, DOI 10.1007/978-3-211-99370-5_14

PHILOSOPHY AND CONCEPTS OF MODERN SPINE SURGERY

A.Alexander/Advances in Minimally Invasive Surgery and Therapy for Spine and Nervers, Acta Neurochirurgica Supplementum 108, DOI 10.1007/978-3-211-99370-5_15

AFILIACION A SOCIEDADES ACADEMICAS

- **SOCIEDAD MEXICANA DE CIRUGIA NEUROLOGICA (SMCN)**

- **ASOCIACION MEXICANA DE CIRUGIA DE COLUMNA (AMCICO)**
- **SOCIEDAD INTERAMERICANA DE CIRUGIA DE COLUMNA MINIMAMENTE INVASIVA (SICCMI)**
- **AO SPINE LATINOAMERICA**
- **COLEGIO MEDICO DEL CENTRO MEDICO ABC, A.C.**
- **NORTH AMERICAN SPINE SOCIETY**

Title of abstract :

- Aplicaciones de los accesos tubularesmicroduirurgicos en columna cervical

APPLICATIONS OF MICROSURGICAL TUBULAR ACCESSES IN CERVICAL SPINE

Microsurgical tubular access have been extensively described in the literature and popularized by Kevin Foley and his collaborators. We present our experience with the application of tubular accesses in cervical spine surgery including C1-C2 and Subaxial Regions. During the presentation short videos are shown with different techniques including C1-C2 Fusion, Laminoplasty, Facet Fusion, Anterior and Posterior foraminotomies, Arthroplasty and Arthrodesis. Although tubular microsurgical techniques are complex, the clinical results are encouraging.

0178

Manuel Rodriguez

Title of abstract :

- Miss Tlif Con Tornillos Unilaterales Vs Bilaterales: Resultados Clínicos

ABSTRACT FOR WCWFMISS ISTAMBUL . Abril 2014.

Unilateral -vs- Bilateral MISS TLIF screws: Clinical Results

Presenter: Rodriguez Manuel, MD

Summary: For many years stabilization of the lumbar spine with TLIF technique and bilateral transpedicular screw instrumentation has been the choice for segmental lumbar fusion with satisfactory clinical results. Nowadays we are performing the lumbar stabilization with TLIF and unilateral transpedicular screw instrumentation with similar clinical outcomes. **Material and Methods:** We carried out a retrospective review of 67 patients with clinical symptoms of lumbar pain instability with or without leg pain. Preoperative and 3, 6 and 12 months postoperative outcome measures were: VAS leg pain and low back pain, Oswestry and SF - 36. Comparison between unilateral (n=33) and bilateral (n=34) instrumentation groups was performed. **Results**: Baseline characteristics were similar in both groups, except radicular pain, which was higher in the unilateral group. In both groups improvement in all outcome measures was clinically and statistically significant. Similar results were observed between groups at 12 months postoperatively. **Conclusion:** The technique of TLIF with unilateral transpedicular instrumentation has similar results as bilateral at 12 months after surgery. Both techniques are safe and effective.

Key words: TLIF, transpedicular screw, clinical outcomes.

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PERCUTANEOUS MANAGEMENT OF LUMBAR DISK HERNIATION

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Describes the experience of different transforaminales percutaneous techniques for management of the lumbar disk herniation

Describes the surgical technique used in the transforaminal percutaneous approach through the triangle of Kambin, either nucleotomy, nucleoplastia, nucleolisis, making reference to the use of combined techniques.

In addition the indications, contraindications, complications and outcomes of each techniques are discussed

Title of abstract :

- Percutaneous mangement on the lumbar disc herniation

World Congress of WFMISS Istanbul
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Cadaver Course

April 9, 2014

Faculty: John Chiu · Stefan Hellinger · Tolgay Satana · Burkay Kazma · Murat Erguven

PERCUTANEOUS ENDOSCOPIC LUMBAR DISCECTOMY

	PELD	PELD + Disc-Fx	OLIF
	(Instructor: Prof.Dr Baalmann Rainer)	(Amendia / Stefan Hellinger)	(Prof.Dr José Gabriel Rugeles)
	GROUP A	GROUP B	GROUP C
	GROUP B	GROUP C	GROUP A
	GROUP C	GROUP A	GROUP B

HANDS ON SELF PRACTICE

Faculty: Ibrahim Yegul · Ehsan Erhan · Halil Algin · Burcu Candan · Taylan Temeli · Burkay Kazma · Burkay Guven

PERCUTANEOUS FLUOROSCOPY & PAIN PROCEDURES

	Facet Rhizotomy	Endoscopic Foraminal Anatomy
	Foraminal Injections	
	Ganglion blockage	
	GROUP A	GROUP B
	GROUP B	GROUP A

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