4th Interventional Pain Istanbul Symposium and Hands on Cadaver Workshop
22-23 October 2021, Istanbul, Turkey

Organized by WIP Registered Turkish Section (Affiliated to WIP)
Endorsed by World Institute of Pain

Final Program and Abstract Booklet

www.interventionalpainistanbul.org
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WELCOME MESSAGE

Dear Colleagues,

The main purpose of World Institute of Pain is to educate and train our colleagues by including local hands-on training, international seminars, and exchange of clinicians all over the world.

Last year we organized the 3rd Interventional Pain Istanbul, Virtual Symposium with 175 participants from 35 countries between 23-24 October 2020.

It is again a great pleasure and honour for us to welcome you all to the 4th Interventional Pain Istanbul, Pain Symposium and Cadaver Workshop endorsed by World Institute of Pain and organized by WIP Turkish Registered Section in Istanbul, Turkey to be held between 22-23 October 2021.

This year, all lectures will be given virtually and we will organize a Cadaver Workshop during the symposium which will be lively broadcasted to all over the world where our colleagues will perform the procedures and you will be able to ask questions interactively.

The cadaver workshop and simulation will include all important the interventional procedures for chronic pain. Our main goal is to present the scopes of pain medicine, algology on an interventional level.

The scientific program committee established on a multidisciplinary multinational level, formed of well known colleagues who gave their whole lifes to the Pain Medicine will give you the real taste of pain medicine, algology.

We are looking forward to welcome you in the 4th Interventional Pain Istanbul.

On behalf of the Organizing Committee

Serdar Erdine, MD,FIPP
Chair of the WIP
Registered Turkish Section

Peter Staats, MD,FIPP
WIP President

İbrahim Aşık, MD,FIPP
Co-chair of WIP
ABOUT WIP

Mission

WIP’s mission is to bring together the most recognized experts in the field of pain medicine throughout the world for the advancement and standardization of interventional pain practice and the achievement of improved standards of care for pain patients.

WIP fulfills its mission through sponsorship and endorsement of educational and training programs for pain physicians. These programs are aimed at facilitating the development of practice guidelines and standards of examining and assessing competency in physicians who specialize in interventional pain practice.

The World Institute of Pain was founded in 1993 as a worldwide organization that aims to promote the best practice of pain medicine for the 21st century. The majority of acute, chronic, and cancer patients are inadequately represented in the world. The population of chronic pain and cancer pain patients is expected to double by the year 2030, and the older population is expected to live longer. Specialized and focused care of pain patients is essential if adequate and continued care is to provide comfort and functional improvement in their daily living. Pain medicine specialists can provide this care.

Through educational initiatives, including WIP World Congresses, regional symposia, and practical workshops on interventional pain practice, WIP helps promote consensus building among experts on the effectiveness of existing techniques and avenues for advancement of therapeutic performances.

Goals

To educate and train personnel of member pain centers by including local hands-on training, international seminars, and exchange of clinicians. Update pain centers with state-of-the-art pain information, including a newsletter, scientific seminars, interlined telecommunications, and publication of a journal and books.

Develop common protocols for efficacy and outcome studies.
Communicate administrative and patient-related matters on a regular basis by way of newsletter, telephone hook-up, world directory of pain centers by region, and video conferencing (including patient consultation).

Categorize and credential pain centers by mail correspondence, local information, and the industry's medical representatives.

Develop examination process for pain centers in testing trainees, and provide know-how in the examination process.

Encourage interested industries to provide information on pain medicine in each region of the world; to bring together local pain physicians and industry for education in new technology and training; and to formulate a fellowship-training program.
ABOUT WIP REGISTERED TURKISH SECTION

WIP REGISTERED TURKISH SECTION (AFFILIATED TO WIP)

World Institute of Pain has 30 Sections from all over the world. The World Institute of Pain® (WIP) in 2007 established an international framework of WIP Sections that encourages the promotion and development of WIP’s membership network, WIP-endorsed activities, and liaisons with individuals or groups with similar interests in fields related to best practice of pain management, pursuant to Bylaws Article 6, Paragraph A. Sections. Through these international Sections and other international networks of pain medicine physicians, WIP can more fully realize and enhance the exchange of scientific and clinical management practices in a manner that encourages international goodwill, as well as social and cultural impact. WIP encourages the establishment of regional Sections when such Sections would promote the objectives of WIP.

WIP recognizes the value of formal liaisons with other scientific and professional organizations whose purposes are consistent with the mission and aims of WIP.

On January 14, 2017, the Executive Board of the World Institute of Pain® (WIP) agreed to support requests by official Sections of WIP to register their Sections in their countries when doing so would better empower FIPP® (Fellow of Interventional Pain Practice®). Members of WIP to organize educational activities in accordance with the non-profit mission and aims of WIP.

This action was affirmed for the Affiliated WIP Section of Turkey by unanimous electronic vote on 23th of November 2017 with 12 of 12 Executive Board directors and officers (Section V) voting in favor of registration of the Turkish Section of WIP, with the below-named FIPP® Members acting as organizers of the Affiliated WIP Section of Turkey.

The first officers appointed to lead the WIP Turkish Section are:

- Serdar Erdine
- İbrahim Aşık
- Alp Yentür
- Meltem Uyar
- Mert Akbaş
On the 26th of June 2018 WIP Affiliated Registered Section of Turkey has been approved by the Ministry of Interior of Turkey. The process was not an easy one however worth to give a struggle inorder to have a better way of organizing WIP activities, promote FIPP not only within the country but also in a broader region, joining together our colleagues from the Middle East, Mediterranean, Middle Asia and Caucasus.

In order to reach that goal, WIP Turkish Section is organizing scientific symposiums, cadaver workshop and simulation workshops, establish a webportal to educate and train the future.

This is a new and exciting step in the history of World Institute of Pain to register their Sections in their countries when doing so would better empower FIPP® (Fellow of Interventional Pain Practice®) Members of WIP to organize educational activities in accordance with the non-profit mission and aims of WIP. On the 19th of October 2018 the General assembly of the WIP Turkish Registered Section was held and the following Officers has been elected:

- Serdar Erdine; MD,FIPP, Chair
- İbrahim Aşık, MD,FIPP, Co Chair
- Can Eyigör; MD,FIPP, Secretary
- Alp Yentur, MD,FIPP, Treasurer
- Mert Akbaş; MD,FIPP, Liaison to WIP

Until now Turkish Registered Section has organized three Interventional Pain Istanbul Symposium and cadaver workshops in CASE laboratories of Acıbadem University, Istanbul, Turkey:

- 1st Interventional Pain Istanbul was held between 19-21 October 2018, with 48 participants, from 15 countries.
- 2nd Interventional Pain Istanbul was held between 25-27 October 2019, with 109 participants, from 45 countries.
- 3rd Interventional Pain Istanbul, Virtual Symposium and Cadaver workshop was held with 175 participants from 35 countries.

1st FIPP - CIPS examination of World Institute of Pain was held on the 27th of October 2019 with 38 colleagues taking the examination.
Between 2018-2019 WIP Turkish Section has organized four regional meetings and cadaver workshops within Turkey in several cities.

After the pandemic of Covid-19 all over the world it was not possible to organize physical meetings thus WIP Turkish Section decided to organize virtual symposium series and the 1st Virtual Pain Symposium has been organized on the 30th of May 2020 with a total number of 447 participants from 60 countries.

On the 4th of July 2020 WIP Turkish Section organized the 2nd Virtual Symposium for Turkish Colleagues with 150 participants.

Now we are holding the 3rd Interventional Pain Istanbul, Virtual Symposium with 175 participants from 35 countries.

The 4th Interventional Pain Symposium and Cadaver Workshop will be held between 21-24 October 2021 in Istanbul Turkey.

13th World Congress of World Institute of Pain will be held in Antalya, Turkey in 2023, the 100th anniversary of the declaration of Republic of Turkey.
BOARD AND ORGANIZERS

Organized by WIP Registered Turkish Section (Affiliated to WIP)

Endorsed by World Institute of Pain and Turkish Society of Algology

World Institute of Pain, Executive Board

- Peter Staats, MD, MBA, FIPP, USA, President
- Miles Day, MD, FIPP, USA, Honorary Secretary
- Dominic Hegarty, MD, FIPP, Ireland, Honorary Treasurer
- Mert Akbaş, MD, FIPP, Turkey, Chair of Sections
- Serdar Erdine, MD, FIPP, Turkey, Founder, Past President
- Gabor B. Racz, MD, DABIPP, FIPP, USA, Founder, Past President
- Ricardo Ruiz-López, MD, FIPP, Spain, Founder, Past President
- Mark Tolliver, USA, Executive Officer
- Chair of Board of Examination: Kris C.P. Vissers, MD, PhD, FIPP

Organizing Committee

WIP Registered Turkish Section (Affiliated to World Institute of Pain)

- Serdar Erdine, MD, FIPP, Chair
- Ibrahim Aşık, MD, FIPP, Co-Chair
- Mert Akbaş, MD, FIPP
- Alp Yentur, MD, FIPP
- Can Eyiğör, MD, FIPP
INTERVENTIONAL PAIN SYMPOSIUM – Main Topics

- Fluoroscopic radiology for interventions and Radiation safety
- Interventional procedures in cranial neuralgias (trigeminal, sphenopalatine, glosso-palatine, glosso-palatine)
- Cervical spinal interventions (Interlaminar, transforaminal injections, medial branch block)
- Lumbar and sacral spinal interventions (Transforaminal injection, medial branch block, nerve root block (DRG))
- Sympathetic nervous system: interventional treatments (Stellate, thoracic sympathetic, lumbar sympathetic ganglia)
- Invasive cancer pain therapy (Splanchnic, celiac, hypogastric, impar ganglia)
- Neuromodulation: New indications – Recent advances in Electrical neuromodulation
- SCS and chronic pain. What is the evidence?
- Drugs and pumps for intrathecal drug delivery
- Intervention for peripheral neuropathies
- New Evidence for Pulsed RF
- Regenerative procedures for pain
- Epiduroscopy and epidural neuroplasty
- Precautions for the complications of interventional treatment modalities
CADAVER WORKSHOP TOPICS

BASIC TECHNIQUES
- Trigeminal, supraorbital and infraorbital blocks
- Sphenopalatine block
- Cervical epidural block
- Cervical transforaminal DRG/Injection
- Cervical facet median branch RFTC
- Stellate ganglion block
- T2-Th4 sympathetic block
- Thoracic sympathetic block
- Splanchnic block
- Celiac block
- Lumbar transforaminal block
- Lumbar facet median branch block
- Lumbar sympathetic block
- Spinal cord stimulation thoracal
- Spinal cord stimulation cervical
- Epidural neuroplasty

USE OF ULTRASOUND FOR INTERVENTIONAL PROCEDURES
- Ultrasonography for head and cervical spine
- Ultrasonography for thoracal and lomber spine
- Ultrasonography for upper extremity
- Ultrasonography for the joints
- Ultrasonography for the lower extremity

ADVANCED TECHNIQUES
- Epiduroscopy
- Extraforaminal neurotomy
- Servical intradiscal decompression
- Thoracal intradiscal decompression
- Lumber intradiscal decompression
- Percutaneous lomber discectomy and RFTC
- Vertebroplasty and kyphoplasty
- Transforaminal endoscopic discectomy
- DRG Stimulation
- Peripheric stimulation
## SCIENTIFIC PROGRAM

### 22.10.2021 – FRIDAY

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>08:00 – 08:30</td>
<td>Opening Ceremony</td>
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<tr>
<td>Moderator</td>
<td>Peter Staats: President of WIP, Serdar Erdine: Chair of WIP Registered Turkish Section, İbrahim Aşık: Co-Chair of WIP Registered Turkish Section</td>
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<tr>
<td></td>
<td>Goals of WIP and FIPP exam</td>
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<tr>
<td>08:30 – 08:50</td>
<td>Vagus Nerve stimulation</td>
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<tr>
<td>Moderator</td>
<td>Peter Staats</td>
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<tr>
<td>08:50 – 09:10</td>
<td>How does anesthesia render surgery pain-free ?</td>
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<tr>
<td>Moderator</td>
<td>Marshall Devor</td>
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<tr>
<td>09:10 – 09:30</td>
<td>An overview of the speciality of pain medicine</td>
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<tr>
<td>Moderator</td>
<td>Ricardo Ruiz Lopez</td>
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<tr>
<td>09:30 – 09:50</td>
<td>Interventional Pain as a Specialty around the World</td>
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<tr>
<td>Moderator</td>
<td>Kris Vissers</td>
</tr>
<tr>
<td>09:50 – 10:10</td>
<td>The Consensus Guideline for Managing Facet Joint Pain</td>
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<tr>
<td>Moderator</td>
<td>Jan Van Zundert</td>
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<tr>
<td>10:10 – 10:30</td>
<td>Ultrasound; horizons and limits for the use of ultrasound in pain manage</td>
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<td>Moderator</td>
<td>Christ Declerck</td>
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<tr>
<td>10:30 – 10:50</td>
<td>Coffee Break</td>
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**SESSION II**  
*Moderators: Alp Yentür, Ender Sir*

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>10:50 – 11:10</td>
<td>Fibromyalgia and fibrofog</td>
<td>Ayşen Akıncı</td>
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<tr>
<td>11:10 – 11:30</td>
<td>Treatment Algorithm for Spinal Stenosis</td>
<td>Ramsin Benyamin</td>
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<tr>
<td>11:30 – 11:50</td>
<td>Progress in regenerative procedures for pain</td>
<td>R.Ruiz Lopez</td>
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<tr>
<td>11:50 – 12:10</td>
<td>Restorative Neurostimulation for Low Back Pain</td>
<td>Christopher Gilligan</td>
</tr>
<tr>
<td>12:10 – 12:30</td>
<td>Intradiscal decompression techniques for LBP and radiculopathy</td>
<td>İbrahim Aşık</td>
</tr>
<tr>
<td>12:30 – 12:50</td>
<td>Osteoplasties: Beyond the Vertebral Body</td>
<td>Ricardo Plancarte</td>
</tr>
<tr>
<td>12:50 – 13:10</td>
<td>Complications of interventional pain procedures</td>
<td>Serdar Erdine</td>
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<tr>
<td>13:10 – 14:00</td>
<td>Lunch</td>
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**Cadaver Workshop only for registered Delegates**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 1</th>
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<tbody>
<tr>
<td>14:00 – 15:50</td>
<td>Radiofrequency of Trigeminal ganglion</td>
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<td>Radiofrequency of Sphenopalatine ganglion</td>
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<td>Cervical facet joint block and RF denervation</td>
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<td>Cervical transforaminal epidural steroid injection</td>
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</tbody>
</table>
Session 2
16:10 – 18:00
- Lumbar sympathetic ganglion block and RF
- Lumbar DRG RF
- Lumbar transforaminal injection
- Lumbar facet joint block and RF
- Lumbar intradiscal decompression / Discography
- Transforaminal Discectomy
- Shoulder, Hip and Knee injections
- PNS (Peripheral Nerve Stimulation)

23.10.2021 – SATURDAY

SESSION III
Moderators: Pakize Kırdemir, Can Eyigör

8:10 – 8:30 Cranial Neuralgias

Ersin Tan

8:30 – 8:50 Interventional pain procedures for cranial pain

Miles Day

8:50 – 9:10 Thoracic pain, diagnosis and treatment

Arun Bhashkar

9:10 – 9:30 Abdominal Pain

Ender Sir
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>9:30 – 9:50</td>
<td>Pelvic Pain</td>
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<td><em>Ayşen Yücel</em></td>
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<tr>
<td>9:50 – 10:10</td>
<td>Sympathetically maintained pain : interventional treatment</td>
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<td><em>Sacit Güleç</em></td>
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<tr>
<td>10:10 – 10:30</td>
<td>Interventional Management of Cancer Pain</td>
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<td><em>Monique Steegers</em></td>
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<tr>
<td>10:30 – 10:50</td>
<td><strong>Coffee Break</strong></td>
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<td><strong>SESSION IV</strong></td>
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<tr>
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<td><strong>Moderators: Meltem Uyar, Cüneyt Özaktay</strong></td>
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<tr>
<td>10:50 – 11:10</td>
<td>Cervical pain and radiculopathy</td>
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<td></td>
<td><em>Meltem Uyar</em></td>
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<tr>
<td>11:10 – 11:30</td>
<td>Interventional pain procedures for cervical pain and radiculopathy</td>
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<td><em>Dominic Hegarty</em></td>
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<tr>
<td>11:30 – 11:50</td>
<td>Transforaminal Endoscopic Discectomy</td>
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<td><em>Oğuz Karaeminoğulları</em></td>
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<tr>
<td>11:50 – 12:10</td>
<td>Peripheral Nerve Stimulation(PNS) Through Wireless Technology</td>
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<td><em>Andrea Trescot</em></td>
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<tr>
<td>12:10 – 12:30</td>
<td>Spinal Epidural Endoscopic or Pertutaneous Adhesiolysis. What is the di-</td>
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<td><em>Mert Akbaş</em></td>
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<td>12:30 – 12:50</td>
<td>Epidural neuroplasty, What has been achieved since the beginning?</td>
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<td><em>Carl Noe</em></td>
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<tr>
<td>Time</td>
<td>Session Details</td>
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<td></td>
<td>Adnan El Kaisy</td>
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<tr>
<td>13:10 – 14:00</td>
<td>Lunch</td>
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<td>Cadaver Workshop only for registered Delegates</td>
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</tbody>
</table>
|              | **Session 3**  
| 14:00 – 15:50| - Cervical interlaminar injection  
|              | - T2-T3 Sympathetic block and RF  
|              | - Splanchnic nerve block and RF  
|              | - Celiac Plexus block  
|              | - Cervical and thoracic SCS  
|              | - DRG Stimulation                                                              |
| 14:00 – 18:00| **15:50-16:10 Break**                                                          |
|              | **Session 4**  
| 16:10 – 18:00| - Hypogastric plexus block  
|              | - Sacral nerve root block  
|              | - Sacroiliac joint injection and RF techniques  
|              | - Impar ganglion block  
|              | - Caudal neuroplasty  
|              | - Epiduroscopy  
|              | - Vertebroplasty/Kyphoplasty  
|              | - Sacral neuromodulation                                                        |
SYLLABUS

Serdar Erdine, MD, FIPP
Biographical Sketch

Education
1965-1972, High School: Kadıköy Maarif College (Education all in english)
1972-1978 - Graduated from Cerrahpasa Medical Faculty of Istanbul University in 1978
1978-1982 Residency: Completed residency Department of Anesthesiology and Reanimation of Medical Faculty of Istanbul, Istanbul University in 1982
1986: Associate Professor in Anesthesiology
1991: Professor of Anesthesiology
1990-2011 Professor and Founder and Chairman of Department of Algology (Pain Medicine)
2012: Specialist in Algology (Pain Medicine)
2000 Chair of Istanbul Pain Center, since 2000

Activities – Membership
Founder and President of Turkish Society of Algology 1993–2015
Former Turkish Representative in European Society of Regional Anesthesia 1993–2001
Former Member of the executive Board of Neuromodulation Society 1995–2000
Treasurer of EFIC/European Federation of IASP Chapters,- 1996–1999
Honorary Secretary of EFIC, 1999–2002
President Elect of EFIC, 2002–2005
President of EFIC, 2005–2008
Past President of EFIC, 2008–2011
Founding member of World Institute of Pain-WIP, 1994
General Secretary of WIP, 1994–1999
Vice President of WIP, 1999–2002
President Elect of WIP, 2005-2008
President of WIP, 2008-2011
Chair of Board of Examination – WIP, 2005-2008
CEO of the World Institute of Pain Foundation 2009-2014
Current Member of the Executive Board of World Institute of Pain
Member of the Procacci Pain Foundation in Italy
Trustee of Nopain Foundation in Malta

**Journals**

- Editor of Turkish Journal of Pain–cited in index medicus 1988-2012

**Awards**

1. Awarded as the Young leader in medicine/Turkish Jaysees, 1991 for being the pioneer for Pain Medicine in Turkey.
2. Chyristal Seagulf award by the Highschool he graduated given to outstanding students
3. Life Time Achievement Award, 2012, Medical Chamber of Istanbul, for establishing Pain Medicine in Turkey.
4. Center of Excellence in Pain Practice Award for Comprehensive Multidisciplinary Pain Practice by World Institute of Pain in 2013
5. Honorary Member of European Pain Federation
6. Trail Brazzers award by World Insitute of Pain 2017

**Invited Speaker on National and International Level**

- Invited speaker in 170 lectures on international level
- Invited speaker in 200 lectures on national level

**Books**

- Author of 25 books in Turkish
- Editor-co editor of 8 books in English
1. Management of Pain A World Perspective I
   Volume 1,2
   P. Raj, S. Erdine, D. Niv, S. Raja
   Proceedings of the 6th International Congress, Pain Clinic, Atlanta 15-20 April 1994
   Copyright 1995.
   Monduzzi Press Italy

2. Management of Pain A World Perspective II
   Volume 1,2
   S. Erdine, P. Raj, D. Niv
   Proceedings of the 7th International Pain Congress Istanbul, 1996
   Monduzzi Press 1997 Italy

3. Management of Pain A World Perspective III
   J. De Vera, W. Parris, S. Erdine
   Proceedings of the 8th International Pain Congress Teneriffe, Spain, 1998
   Monduzzi Press

4. Textbook of Regional Anesthesia
   P. P. Raj, co /editor, S. Erdine
   2001, Blackwell Sciences, New York

5. Radiological Imaging for Interventional Pain Techniques
   P. Raj, L. Lou, S. Erdine, P. Staats,
   Churchill Livingstone, 2002

6. Radiographic Imaging for Regional Anesthesia and Pain Management
   PP Raj, L. Lou, S. Erdine, PS Staats, SD Waldman
   Churchill Livingstone, 2003

7. Interventional Pain Management: Image Guided Procedures
   Prithvi Raj, Leland Lou, Serdar Erdine, Peter Staats, Steven Waldman, Gabor Racz, Michael Hammer, David Niv, James Heavner

8. Pain Relieving Procedures, Step by Step Illustrated Guide, Serdar Erdine, Prithvi Raj,
   Wiley Blackwell, 2012
Author of 200 articles in international or national level mainly on interventional pain management.

**Congress he organized**
- Organizer of 15 National Congresses on Pain Medicine in Turkey
- Organizer of World Congress of World Society of Pain Clinicians, Istanbul, 1996
- Organizer of the Annual Congress of European Society of Regional Anesthesia, Istanbul, 1999
- Organizer of 3rd World Congress of World Institute of Pain, Istanbul, 2001
- Organizer of the Pain in Europe V, triennial Congress of European Pain Federation, Istanbul, 2006
- Organizer of the 1st Interventional Pain Istanbul was held between 19-21 October 2018
- Organizer of the 2nd Interventional Pain Istanbul was held between 25-27 October 2019

**Lecture**

**Complications of Interventional Pain Procedures**

Increasing number of physicians carrying out interventional pain procedures. There is an exponential increase in the use of injections and other interventions to treat pain thus complications is a major problem.

Interventional pain procedures are minimally invasive and maximally dangerous. A serious complication is devastating for the patient, and devastating for the physician and are often avoidable.

A wise interventionalist is prepared for problems, anticipates problems and reacts appropriately to an emergency and does not turn an emergency into a disaster.

In order how to avoid complications you have to learn anatomy and safe intervention techniques, understand correct X-ray interpretation, practice within your abilities.
You have to get the best training you can, a good patient selection is necessary, and you have to remember, each procedure may carry its own possible complications, so try to avoid them happening.

There may be side effects due to the drugs used during the interventional procedure and procedure related complications. Special areas of concern are injecting anywhere above the shoulders, occipital region, stellate block, cervical transforaminal epidural and thoraco-lumbar transforaminal epidural regions. You have to monitor the patient more closely in certain cases.

Time course of untoward events: Acute e.g. pneumothorax, cord infarction, Sub-acute e.g. nerve damage, discitis Chronic e.g. arachnoiditis.

In order to prevent complications, you have to know and understand the anatomy. You have to know where your needle tip is and feel the tissues if it is on the bone, within the ligament or inside the potential place. You need fluoroscopy image at least 2 views. In case of any doubt stop the procedure, inject contrast material again and check again in two views.

Unwanted procedure events are allergic reactions, medication side effects, pneumothorax, infection, bleeding, nerve damage, spinal cord injury, brain or brainstem injury and death.

As a conclusion interventional procedures are minimally invasive maximally dangerous. Most of the complications can be prevented. Worst complications arise in the most experienced hands. None of the procedures should be underestimated. Education and training is crucial.

**Adnan Al Kaisy, MD, FIPP**

**Biographical Sketch**

Dr Al-Kaisy is Clinical Lead of the world-renowned Pain Management and Neuromodulation Centre at Guy’s and St. Thomas’ NHS trust.

A leading expert in Pain Management, Dr Al-Kaisy has extensive experience in working toward the advancement of electrical neuromodulation techniques within this specialty.
Dr Al-Kaisy led the first multicentre and multinational study on the safety and efficacy of 10 kHz SCS in the management of Failed Back Surgery Syndrome (FBSS). He has subsequently clinically pioneered the use of this novel therapy in the management of different chronic pain conditions including the feasibility study on chronic back patients without prior surgery. He has successfully designed ground-breaking research including a randomized double blind placebo control study examining different frequency in the management of FBSS. He is the innovator of a number of techniques including Transgrade dorsal root ganglion stimulation using monopolar electrical stimulation.

References:

Lecture
Neuromodulation: Different Concepts in Neuromodulation

Spinal Cord Stimulation (SCS) is evidence based therapy with an extensive track record of safety. It is an easy technique and Proven usefulness in treating different neuropathic pain conditions including Radiculitis1, CRPS,2. However there are number of shortcomings including lack of precision with SCS, Shunting of energy by CSF, Postural changes in stimulation which may induce untoward collateral stimulation and Lead migrations post-implantation3

Animal studies have shown the dorsal root ganglion (DRG) is a key anatomical structure for the development of chronic neuropathic pain. A novel implant technique for DRG stimulation (TransGrade) allows the use of an eight-contact lead with monopolar burst stimulation4. Although DRG stimulation has been used successful in the management CRPS and other neuropathic pains, it has potential limitations: focal dermatomal specificity may limit the distribution of therapy to adjacent anatomical areas; bilateral pain complaints may require many more DRG leads; adequate coverage of a single
dermatomal area may necessitate multiple leads at a single DRG; post-operative lead migration may be nearly impossible to safely correct.

In this talk, we will discuss a new concept which involves combined SCS and DRG stimulation to overcome the limitations encountered by either approach individually.

References:

Alp Yentur, MD, FIPP
Biographical Sketch
E. Alp Yentur is a professor of Anesthesiologist and Pain management physician at Celal Bayar University, School of Medicine in Turkey. He joined the Celal Bayar University faculty in 1998. He is the director of Pain Service. He earned his medical degree at Istanbul University, School of Medicine. He completed his anesthesia residency in Sisli Etfal Hospital, Istanbul, and he did his pain management fellowships at Pierre Marie Curie University, Hôpital Saint Antoine Pian Department, Paris, France and Istanbul University School of Medicine, Algology Dept. He also had Acupuncture and Moksibusion education by the UNDP (United Nations Development Programme) – Technical Coorporation for Developing Countries program in Hunan College of Traditional Medicine, Peoples Republic of China. He is Algology Board certified and pain specialist in Turkey is since 2011, and FIPP since 2005. His areas of clinical interest are neuropathic pain, musculoskeletal pain and cancer pain. Dr.
Yentur is the current Treasurer of WIP Registered Turkish Section and a member of WIP, IASP, ESRA, Turkish Society of Algology, Turkish Regional Anesthesia Society, Turkish Anesthesiology and Intensive Care Society.

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Andrea Trescott, MD, DABIPP, FIPP, CIPS
Biographical Sketch
Andrea Trescott, MD is the past president of the American Society of Interventional Pain Physicians (ASIPP), past pain fellowship director at the University of Florida and the University of Washington and the current Chief Medical Officer of Stimwave, a wireless stimulation company. She continues to work clinically in Florida and Alaska. Dr. Trescott has authored more than 150 peer-reviewed articles and textbook chapters, and she is the editor and senior author of a 900-page pain textbook (Peripheral Nerve Entrapments – Clinical Diagnosis and Management). She is also co-author of PainWise – A Patient’s Guide to Pain Management, as well as co-editor of the three-volume pain review textbook Pain Medicine & Interventional Pain Management – A Comprehensive Review and the recent Interventional Pain – A Step-by-Step Guide for the FIPP Exam. She speaks nationally and internationally on topics of pain medicine and interventional pain management.

Lecture
Peripheral Nerve Stimulation (PNS) Through Wireless Technology
In the 50 years since SCS and PNS were introduced, PNS has lagged behind SCS, originally because of the need to do a surgical exposure of the nerves, and then because of the difficulty in finding a place for the IPG. Wireless PNS has opened up a wide variety of peripheral nerve targets. This lecture will discuss some of the current clinical PNS targets, as well as some of the differences between devices.
Dr Arun Bashkar graduated from the medical school of the prestigious University of Kerala, India and subsequently completed his specialist training at the Northwest Deanery, UK, in 2006. He started his consultant career at the world-renowned cancer hospital, The Christie in Manchester. In addition to Royal College Fellowships in Anaesthesia, Pain Medicine and Intensive care, Dr Bhaskar also has a Fellowship in Interventional Pain Practice. Dr Bhaskar has special interests in complex pain, including cancer pain, neuropathic pain, visceral & pelvic pain, pain interventional procedures and neuromodulation. He has also a specific interest in opioid management in complicated cancer pain, as well as opioid dependence and its management in the pain patient population. Dr Bhaskar has been involved with several clinical trials in cancer pain, and neuropathic pain in cancer including chemotherapy-induced neuropathy. He has been involved in developing novel techniques for interventional treatment of pain including intractable cancer pain. Dr Bhaskar is on the faculty of many courses, including the European Pain School and is an examiner for the European Diploma in Pain Medicine and also the FIPP examination for the World Institute of Pain. He writes a regular column in the European Pain News and serves as section editor for the Journal of Observational Pain Medicine. He regularly publishes in peer-reviewed journals and has been member of several guidelines development groups for pain management. Dr Bhaskar is now based in the south of England and his NHS commitment is at the Pain Management Centre, Charing Cross Hospital, Imperial College Healthcare NHS Trust, London.

Dr Bhaskar is the President-elect of the British Pain Society and has served two terms as an elected member of the Council of the British Pain Society. He was also the
Executive Liaison for Interventional SIG, Neuropathic pain SIG and Cancer Pain Committee of the British Pain Society, and currently chairs the Communications Committee. He is also the Hon. Secretary of the Neuromodulation Society of UK and Ireland. Dr Bhaskar is also the present Chairman of the UK Section, World Institute of Pain. Dr Bhaskar advises NICE on interventional procedures, cancer pain and was a co-opted member of the GDG for Care of the Dying. Dr Bhaskar has been a contributing author towards the British Pain Society’s 'Cancer Pain Management' document in 2010 and is currently the Co-chair of the Committee for the Cancer Pain Management Guidelines; he is also the Co-chair of the Neuromodulation Guidelines Committee. He also represents as Councilor for the UK at the European Pain Federation and is a member of the European Pain Federation Task Force on Cancer Pain Management which has recently brought out guidance on provision for cancer pain services across Europe. Dr Bhaskar was the Co-chair for the OPEN Consensus group for Opioid Analgesic Dependency and the recommendations from specialists from Pain Medicine and Addiction Specialists have been accepted for publication in Journal of Addiction Medicine. Dr Bhaskar is part of an international collaboration group looking into the technique and efficacy of interventions for spinal pain and is also involved in another global initiative on reducing contrast toxicity during interventional procedures. Dr Bhaskar is also the immediate past Chair of the Northwest Pain Clinicians, UK, and was a member of the steering group of the Northern England Pain Society. Dr Bhaskar was also part of the scientific committee for European Pain Federation, EFIC 2017 and was also the Co-chair of the International Meeting of the Spinal Interventional Society, London 2018.

Lecture
Thoracic pain, diagnosis and treatment

Thoracic pains are not common, but they are not to be ignored and should be investigated with due diligence. Pathologies arising from, the heart, lung, vascular tree and upper GI tract can present with pain in the thorax. From a relatively self-limiting conditions like costochondritis or post- chest infection pleurisy, chest wall pain could be due to a variety of causes; metastasis to the ribs or the thoracic spine may be one of the earliest indicators of an underlying malignancy. Lung or Breast cancer and multiple myeloma could also present with chest or chest wall pain and osteoporotic vertebral fractures are common causes of persistent pain in the thoracic spine. Post-herpetic neuralgia and intercostal neuralgia are difficult to treat neuropathic pain states in the chest wall. Some of the highest incidence of post-surgical neuropathic pains are in the thorax, be it post-
thoracotomy pain, post-mastectomy pain and post-sternotomy pain along with chronic pain after . Conditions like hiatus hernia can also present with persistent epigastric and lower chest wall pain.

The primary aim should be to try and identify the mechanism of the pain and rule out sinister causes that would require urgent specialised care. Often there would be a difference between pain at rest and on deep inspiration or coughing indicating a chest wall or pleuritic involvement. Appropriate imaging of the chest cavity and the MRI of the spine are mandatory before proceeding further. Along with treating the cause, symptomatic management of pain is important to prevent complications and co-morbidities as well as reduce the length of hospital stay. Though simple analgesics and neuropathic agents have a role, opioids are to be used with caution due to its cough suppressive effect. Interventional management ranges from peripheral nerve blocks to central neuraxial blocks and neuromodulation.

Ayşen Akıncı, MD
Biographical Sketch
Prof. Akıncı Tan was born in Istanbul, in 1961. After graduating from Hacettepe University with her MD degree in 1985, she completed her ‘Physical Medicine and Rehabilitation’ residency at Hacettepe University and Rheumatology training at Virginia University USA, Department of Internal Medicine, Division of Rheumatology. She was appointed as Assoc.Professor in 1995 and Professor in 2002 in Hacettepe University, Department of PMR. Meanwhile, she received ‘The European Board of Physical Medicine and Rehabilitation’ certificate in 2000. In 2010, she completed the recertification for ‘European Board of Physical Medicine and Rehabilitation’ and was also certified as ‘European Board Trainer’. She worked as ClassV coordinator at Hacettepe University School of Medicine between 1998-2006. She is currently working as Profesor at the department of PMR; Hacettepe University. She has also been certified in algology.

She is the member of ‘American College of Rheumatology’, ‘EULAR’, ‘International Osteoporosis Foundation’ and other several national societies. She was the General Secretary of Turkish League Against Rheumatism between 2008-2013, and served as the
President of the same Society between 2013–2015. Now she is the President of Turkish Rheumatology Federation. She is also the Turkish delegate of UEMS Rheumatology section.

She is an active member of the editorial boards of International and National PMR & Rheumatology journals. She has participated in the organization of several National and International symposia and congress as the President or an active member of organizing committee.

Dr. Akıncı’s major research interests include chronic pain, neuropathic pain, inflammatory spondyloarthritis, rheumatoid arthritis, osteoporosis, osteoarthritis and fibromyalgia syndrome. She has published more than 140 scientific papers.

Lecture
Fibromyalgia and fibrofog

Fibromyalgia (FM) is a chronic pain syndrome characterized by widespread musculoskeletal pain accompanied by other symptoms such as non-restorative sleep, fatigue, anxiety, depression, headache and altered cognitive and emotional processing. The etiopathogenesis is controversial; yet latest data supports altered neuromodulation and central sensitization.

Patients with FM usually describe loss of memory, attention, and concentration which is called as “fibrofog”. It is described as having a cloud in the mind that causes forgetfulness; mental overload; and difficulty in thinking, processing information or keeping up conversations. It’s found that the FM patients don’t differ from healthy controls in their overall working memory functioning. Only a poor performance was found in a single task of visuospatial working memory, mediated by the presence of depressive symptoms, fatigue and pain. The FM patients also displayed a higher level of perception of cognitive difficulties than healthy controls, and this difference was mediated by depression and fatigue. So the perceived cognitive impairment in FM patients does not appear to be a consequence of pain but rather to be a part of a cluster of symptoms related to fatigue and mood disorders. Patients with FM reported more distractions than healthy people suggesting that sensitivity to environmental distractions may also play a role in the experience of cognitive dysfunction. And the associations between measures of subjective and objective cognitive functioning for the groups with or without FM suggest that people with FM are not overstating cognitive difficulties. The complexity of FM cognitive dysfunction requires a treatment addressed to neurobiological,
psychological and behavioral factors. The treatments aimed at reducing physical and affective symptoms could also lead to improvements in the subjective cognitive perception.

Since “fibrofog” has a substantial negative effect on quality of life in FM, routine screening may be warranted in addition to assessment of the traditional fibromyalgia symptoms.

Aysen Yucel, MD, FIPP
Biographical Sketch
Professor Aysen Yücel has been a pain specialist for almost 30 years. She completed her Medical education at Ankara University Medical School. After finished her residency in Anesthesiology at Istanbul University, Istanbul Medical School, she worked at Algology Department of Istanbul Medical School between 1990 and 2004.

She has been working at Anadolu Medical Center since 2004. After working as a Medical Director for three years, she has been working as a pain specialist since 2007.

She finished a Ph.D. program in experimental neuropathic pain in Aalborg University, Denmark in 2004, She is a fellow of Interventional Pain Practice since 2003.

She has several national and international publications, books and book chapters. Her main interests are; Cancer pain and palliative care, neuropathic pain, spinal pain, and invasive pain treatment modalities. She treats many different chronic pain patients such as; headache, back pain, neck pain, joint pain, visceral pain, neuropathic pain, and cancer pain. She practices several interventional methods in the treatment of pain, such as; Acupuncture/Trigger point injections, Epidural /Transforaminal Steroid Injections, Facet joint/nerve blocks, Peripheral joint blocks, Peripheral nerve blocks, Radiofrequency thermocoagulation procedures, Neurolytic blocks, Spinal Drug Delivery systems, and Spinal Cord Stimulation
Lecture
Pelvic Pain

Chronic pelvic pain (CPP) is defined as "Intermittent or constant pain in the lower abdomen or pelvis for at least 6 months duration". CPP is one of the common diseases especially in urology and gynecology. Its frequency is between 3% and 10%, and it is more common in women in the reproductive age group. CPP has physical, psychological, and sexual health impacts on patient’s lives and those of their partners.

CPP is a multifactorial disorder and pain may originate from urogynecological, gastrointestinal, pelvic musculoskeletal or nervous systems. CPP may also be seen due to muscular pathologies and nerve sensitization. CPP can be associated with co morbidities such as irritable bowel syndrome, major depressive disorder, or pelvic inflammatory syndrome.

The diagnosis of CPP is made usually after three to six months of pelvic pain and is often based on patient’s history. During the clinical examination; several associated symptoms or precipitating factors that help establish the diagnosis. Psychological evaluation of the patient is also one of the important components of the diagnosis.

Treatment of CPP is often complicated, with limited evidence-based treatment options. Medical treatment plays an important role and different types of medication have all been used for the management of pain. Complementary techniques including acupuncture, physical exercise, life style changes, biofeedback, yoga, massage and psychological approaches are usually suggested as a supplementary treatment. Surgical procedures such as Laparoscopy and exploratory laparotomy are the most common approaches. Interventional techniques; such as; local anesthetic and steroid injections, neurolytic nerve blocks, neuromodulation including spinal cord stimulation and radio frequency thermo coagulation has been used for the treatment of CPP.

Diagnosis and management of CPP requires a multi-disciplinary approach; collaboration between multiple specialties is needed to provide adequate pain relief.
Can Eyigör, MD, FIPP
Biographical Sketch
Can Eyigor is pain physician working as a professor of Anesthesiology and Pain management at Ege University Medicine Faculty in Turkey. He received his residency training in Department of Anesthesiology (1997-2002) in the Dokuz Eylul University Medicine Faculty. Then he started to work as an anesthesiologist in the Department of Algology at Ege University in 2005. Pain Board certificate was given by Turkish Algology Association in 2009. He has been appointed as an Associate Professor in 2011 and Professor in 2017 in the same department. He is still working in the Department of Algology at Ege University Medical Faculty. He has specialized training in fluoroscopic guided minimally invasive interventional acute and chronic pain procedures as well as regional anesthesia techniques within this multidisciplinary pain clinic. His main interests are neuromodulation and regenerative stem cell therapies in chronic pain management. He has a lot of clinical experience with inpatients and outpatients. As a faculty, he teaches minimally invasive interventional pain techniques and medication management for medically challenging chronic pain patients to pain fellows and residents. He regularly gives lecture about chronic pain management in Turkey. He has been working as a practitioner on minimally invasive pain management procedures in different clinics. He was the author or co-author of numerous articles and book chapters in chronic pain management.
Biographical Sketch

Carl Noe, M.D., F.I.P.P. is a Professor of Anesthesiology and Pain Management at the University of Texas Southwestern Medical Center in Dallas, Texas, USA. Carl serves as the medical director of the Eugene Mc Dermott Center for Pain Management. He graduated from the University of Texas Health Science Center in San Antonio Texas and trained at Texas Tech University Health Science Center under Dr. Gabor Racz and at Stanford University under Drs. Barrie Fairley and Myer Rosenthal. He is certified by the American Board of Anesthesiologists in Anesthesiology, Critical Care Medicine and Pain Medicine. He is a Fellow of Interventional Pain Practice.

Lecture

Epidural neuroplasty, What has been achieved since the beginning?

This procedure has been developed and refined by Dr. Gabor Racz over a period of decades. The goals of the procedure are to disrupt epidural adhesions that prevent normal sliding motion between the posterior longitudinal ligament and dura mater. Also, adhesions that prevent normal nerve root movement in the neural foramen are lysed. A special catheter is placed in the ventrolateral epidural space and injected with medications to lyse the adhesions. Special exercises are performed by the patient to maintain the motion achieved after the procedure. The procedure is performed via the caudal approach and has been adapted for cervical, lumbar and first sacral transforaminal approaches. Gerdesmeyer has studied the procedure extensively and reported favorable long term results.

This talk will review the key points of the procedure and the latest points for each approach.

Christ Declerck, MD, FIPP
Biographical Sketch

Dr. Declerck is a doctor of medicine, surgery and obstetrics. He also specialized in anesthesiology and intensive care. He is a member of the European Society of Intensive Care Medicine (ESICM) and the European Society of Regional Anesthesia and Pain Therapy (ESRA). Dr. Declerck is a Fellow of International Pain Practice by the World Institute of Pain (WIP) and he has been working in pain management for several years. He regularly teaches at workshops and presents at conferences, one of which is Pain School International in Budapest.

Lecture
Ultrasound; horizons and limits for the use of ultrasound in pain management

Christopher Gilligan, MD,FIPP
Biographical Sketch

Dr. Gilligan's original training is in Emergency Medicine, with subspecialty training in Pain Medicine, where he has focused on pain of spinal origin. Dr. Gilligan's clinical expertise is focused on the treatment of pain related to disorders of the spine. He also treats patients with a wide range of pain conditions, including cancer related pain, complex regional pain syndrome, and post-herpetic neuralgia.

Dr. Gilligan's research focuses on clinical trials of new interventions, devices and medications for the treatment of pain.
Lecture
Restorative Neurostimulation for Low Back Pain

Introduction Chronic mechanical low back pain (CMLBP) can be caused by impaired neuromuscular control and degeneration of the multifidus muscles resulting in functional instability of the lumbar spine. Available treatment options often lack long-term effectiveness and prognosis is unfavorable. An implantable Restorative Neurostimulation system (ReActiv8® by Mainstay Medical), that stimulates the L2 medial branches of the dorsal rami to reactivate neuromuscular control, received FDA Premarket Approval based on evidence from the ReActiv8-B pivotal trial (clinicaltrials.gov/show/NCT02577354). Here we report the two-year results of the open-label phase of this trial.

Methods: Participants had refractory, activity limiting CMLBP with average low back pain VAS≥6cm, Oswestry Disability Index ODI≥21 points, evidence of multifidus inhibition (prone-instability-test) and no indication for spine surgery. Participants self-administered up to 60-minutes of stimulation per day and were followed-up through two years.

Results: At baseline (N=204), participants were 47±9 years of age, had backpain for 14±11 years, average LBP-VAS of 7.3±0.7cm, ODI of 39.1±10.3 points, EQ-5D (quality-of-life) of 0.585±0.174 and had LBP on 97±8% of days during the year before enrollment.

At two-years (N=159), all prespecified outcome measures showed statistically significant (P<0.0001) and clinically substantial improvements compared to baseline. Average LBP-VAS improved by -4.8±2.4cm (-65.9±32.6%), ODI by -21.7±16.8points (-54.7±39.2%) and EQ-5D by 0.215±0.215; 71% of participants had ≥50% LBP-VAS improvement; 66% had VAS≤2.5cm (LBP-resolution); 62% had ≥20points ODI improvement; 77% had ≥50% improvement in LBP-VAS and/or ODI; 80% was “Definitely satisfied” with the treatment and 59% voluntarily eliminated or reduced opioid consumption. The overall safety profile is favorable, and no lead migrations were observed.
Conclusions: Long-term restorative neurostimulation is an effective, durable, and safe treatment for patients with refractory, activity limiting CMLBP, impaired multifidus motor control and no indications for spine surgery. Clinically substantial improvements, which progressively accrue through two years, are consistent with the restorative mechanism of action.

Cüneyt Özaktay, MD

Biographical Sketch

Dr. Özaktay, senior pain care specialist, joined anesthesia pain care consultants in July 2008, Florida, USA. He graduated from university of istanbul, cerrahpasa medical school in 1988. Upon graduation, he studied "low back pain; mechanisms of injury and understanding the pain pathways" for 12 years, as a research scientist in USA. After receiving his degree in anesthesiology at Wayne State University, detroit medical school in michigan and Dr. Özaktay completed his fellowship in pain medicine at the prestigious dartmouth-hitchcock medical center. He specializes in implantable opioid/baclofen pumps and spinal stimulation.

He has received multiple honors and awards of his work and is recognized as "internationally recognized outstanding researcher by the u.s.a. immigration and naturalization service." Dr. Özaktay is a noted lecturer and has held various teaching appointments throughout his career. Dr. Özaktay has contributed 17 peer-reviewed journal articles and over 40 presentations in various meetings. He has also been on the "reviewer board" for various journals including the journal of spine.
Dominic Hegarty, MD, FIPP

Biographical Sketch

- Consultant in Pain Management and Neuromodulation, Mater Private Hospital Cork, Ireland.
- Clinical Lead Neuromodulation Research, Tyndall National Institute, Ireland.
- President Elect World Institute of Pain (WIP)

He is a Consultant in Pain Management & Neuromodulation at the Mater Private Hospital, Cork, Senior Clinical Lecturer and faculty member of ASSERT training at University College Cork where he promotes educational training in pain medicine.

At present he is the incoming President Elect of World Institute of Pain (WIP), Immediate past Honorary treasurer of WIP and on the Advisory Board of PainCast. In 2017 Dr. Hegarty hosted the WIP World congress in Dublin. He has gone on to be Clinical Lead of Neuromodulation Research, at Tyndall National Institute, UCC and has developed new device design Dr. Hegarty is a faculty member on several international organization including WIP, IASP and ERSA. He is an active researcher & has published extensively on pain management. He is an examiner on the FIPP fellowship exams. As a fellow at Guy's & St.

Thomas' Hospital, London he developed his skills in neuromodulation and is presently an Honorary Consultant there. Dr. Hegarty is the Clinical Director of Pain Relief Ireland (www.painreliefireland.ie) and the senior medial advisor to a number of med-tech companies who believes in providing multidisciplinary and interventional options for his patients in a timely fashion. He truly believes that neuromodulation offers great potential therapy options for certain individuals and we need to develop patient pathways to identify and manage these individuals.
Relevant disclosures

Dr. Hegarty has active research interests in several pain related areas. He is a clinical advisor to Capri Medical, Platform 14 and Senior Medical Advisor with Platform14. He has received honorium and unrestricted educational grants form Medtronic, Boston Scientific, Pfizers, and Grunenthal in this area. Dr. Hegarty will not be speak directly on the use of any specific products.

Lecture
Interventional pain procedures for cervical pain and radiculopathy

Cervical radicular pain impacts on 1 person in 1000 suffers. It is defined as pain perceived as arising in the arm caused by irritation of a cervical spinal nerve or its roots. C7 nerve root is the commonest affected root (60%).

The diagnosis is largely based on a combination of history, clinical examination, and complementary investigations. Medical imaging may show abnormalities, but those findings may not correlate with the patient's pain. The role of electrophysiologic testing has the potential to provide quantitative/ qualitative information about the pain. The presumed causative level may be confirmed by means of selective diagnostic blocks.

Evidence based clinical data supports the use of Pulsed radiofrequency treatment adjacent to the cervical dorsal root ganglion and it is the recommended treatment for chronic cervical radicular pain (1B+). When its effect is insufficient or of short duration, conventional radiofrequency treatment is recommended (2B+). In selected patients with cervical radicular pain, refractory to other treatment options, spinal cord stimulation may be considered.

Overall the management of cervical radicular pain required an updated review with focused research to assist in understanding the best options for patients.
Ender Sir, MD, FIPP
Biographical Sketch

PERSONAL INFORMATION
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WORK EXPERIENCE
19 July 2016 - Now Attending Anesthesiologist and Pain Physician
2014 - 2016 Fellow in Department of Algology and Pain Medicine, Gulhane Military Medical Academy, Ankara, Turkey
2007 - today Research Activities in Algology, Pain Medicine and Anesthesiology at Gulhane Military Medical Academy, Ankara, Turkey

EDUCATION AND TRAINING
August 2017 Board Certification, Fellow of Interventional Pain Practice (FIPP)
2014 - 2016 Fellowship: Department of Algology and Pain Medicine, Gulhane Military Medical Academy, Ankara, Turkey
2007 - 2011 Residency: Department of Anesthesiology and Reanimation, Gulhane Military Medical Academy, Ankara, Turkey
1998 - 2004 School of Medicine, Gulhane Military Medical Academy, Ankara, Turkey

Lecture
Abdominal Pain

Almost all people experience abdominal pain at least once in their life. This pain can be a symptom of a serious condition or a temporary disorder. Acute abdominal pain often indicates a sudden physiological change such as an obstructed or perforated hollow organ,
infection, inflammation, or a sudden ischemic event. Chronic abdominal pain is less likely to reveal underlying organic pathology than acute abdominal pain. Diagnosis and management of patients with chronic abdominal pain is often challenging. Factors that contribute to this include poor sensitivity of the history and physical exam, a broad differential diagnosis that crosses several specialties, and an often negative diagnostic workup. In case of insufficiency of pharmacological treatments, interventional procedures are applied. Celiac plexus block and splanchnic nerve block are used in chronic abdominal pain interchangeably, preference is made according to individual anatomic and physical conditions. Main indications for celiac plexus block and splanchnic nerve block can be listed as acute-chronic pancreatitis and cancers of pancreas, stomach, liver, gallbladder, omentum, mesentery, digestive tract beginning with the stomach and terminating at the mid-transverse colon. Evidence for interventional treatment of upper abdominal pain due to cancer are neurolytic plexus coeliacus block 2A +, and neurolytic nervus splanchnicus block 2B +.

Chronic pelvic pain can cause from gynecologic, non-gynecologic disorders and malignancies of uterus, cervix, ovary, bladder, rectum and prostate. Interventional treatment modality of pelvic region is superior hypogastric plexus block. Evidence for neurolytic superior hypogastric plexus block in pelvic pain due to cancer is 2C +.

All interventional treatments of abdominal and pelvic region must be administered by physicians who are experienced in these procedures to prevent vital complications such as pneumothorax, bleeding, and organ injuries.
Ersin Tan, MD

Biographical Sketch
Birthday: June 20, 1959, Ankara, Turkey
High School: TED Ankara College (1976)
Medical School: Ankara University, School of Medicine (1976-1982)
Residency Training: Hacettepe University, Department of Neurology
Postdoctoral Fellowship: Ohio State University, Department of Neurology, Neuromuscular Diseases Research Center (1990-2)

Faculty Appointment: Associate Professor of Neurology (1992), Professor of Neurology (1999), Director of Neuromuscular Diseases Research Center at Hacettepe University (1994-)

Memberships:
American Academy of Neurology
Peripheral Nerve Society
World Muscle Society
Head of National Motor Neuron Diseases Research Group
Head of Turkish Neuropathic Pain Study Group
Past President of Turkish Neurological Society

Lecture
Cranial Neuralgias

The most frequently encountered primary neuralgias are trigeminal neuralgia, occipital neuralgia and rarely, glossopharyngeal neuralgia. Nervus intermedius neuralgia is even more rare. Trigeminal neuralgia is a facial-pain syndrome of unknown cause that develops in middle to late life. In many instances, microvascular compression of the nerve is believed to cause the disorder. Pain is confined mainly to the area supplied by the second and third divisions of the trigeminal nerve.
Patients with glossopharyngeal neuralgia, an uncommon pain syndrome, present with either a paroxysmal pain that is identical in quality to that of trigeminal neuralgia, or a continuous burning or aching discomfort. The pain is localized to the oropharynx, the tonsillar pillars, the base of the tongue, or the auditory meatus. The trigger areas are usually around the tonsillar pillars, so that symptoms are initiated by swallowing or by talking.

Occipital neuralgia is a neuralgia that is often overdiagnosed when patients with migraine have posterior pain and tenderness over the greater occipital notch or where the greater occipital nerve exits. In occipital neuralgia of pain occur, variously described as brief or sharp or stabbing, and either unilateral or bilateral.

The nervus intermedius is a sensory branch of the facial nerve. It serves sensation around the ear, including the external auditory meatus and the skin behind the ear, as well as over the mastoid. Nervus intermedius neuralgia can present as either a set of briefs, severe, stabbing, shooting, piercing, or sharp pains, or pains of longer duration, from 2 seconds to minutes in length.

The drug treatment of all kinds of neuralgias generally relies on antiepileptic drugs, antidepressants, and baclofen. Surgical and invasive treatments include ablation, gamma knife treatment, and microvascular decompression.

Marshall Devor, MD
Biographical Sketch
Marshall Devor is the Alpert Professor of Pain Research at the Hebrew University of Jerusalem, Israel (HUJI). He was born in Toronto, Canada in 1949. His bachelor’s degree is from Princeton University (1970) and his PhD from MIT (1975). He was a postdoctoral fellow with the pain research pioneer Prof. P.D.
Lecture

How does anesthesia render surgery pain-free?

General anesthesia permits pain-free surgery. As such it is the most powerful pain suppressing modality of all. How do small-molecule agents suppress consciousness, and pain, while preserving life-sustaining autonomic and housekeeping functions, and a good deal of primary sensory processing? It is widely presumed that anesthetics, particularly GABAergic agents like barbiturates and propofol, cause global suppression of neuronal activity throughout the brain due to an action on ubiquitously distributed GABAA-receptors. I will present evidence for a radically different explanation; that a small group of neurons in the brainstem mesopontine tegmentum containing GABA-receptive neurons has executive control over the alert status of the entire cerebrum and spinal cord. These neurons can rapidly and reversibly switch brain-state between wakefulness and unconsciousness by means of dedicated axonal pathways.
Ibrahim Aşık, MD, FIPP

Biographical Sketch

Dr. İbrahim Aşık, MD, FIPP is a clinical professor in Pain Medicine and head of the Department of Algology, in Medical Faculty of Ankara University, Turkey. After graduating medical school, he started the Anesthesiology residency in 1991 at University of Ankara, Faculty of Medicine, Anesthesiology and Pain Department Ankara, Turkey. After residency, he studied in Multidisciplinary Pain Center in Ann Arbor at University of Michigan and he partipicitated in experimental studies about spinal pain in Wayne State University, Bioengineering Center, Detroit, in 1999. He is board certified and pain specialist in Turkey since 2011, and Fellow of Interventional Pain Practice (FIPP) since 2007. His areas of clinical interest are interventional treatments of neck and low back pain and neuromodulation in failed back and neck patients. Dr. Aşık is the current co-chair of WIP Turkish Registered Section. He is the author of more than 100 publications in peer reviewed journals and in editorial board of several journals. He organized 5 national symposiums and two international workshops.

Scientific Memberships:
WIP Turkish Section, Vice President, Founder Member
Turkish Pain Society, Member
World Institute of Pain, Member
International Neuromodulation Society Turkish Chapter, Founder Member
Turkish Neuromodulation Society, Member
Detailed CV can be found www.interventionalpainistanbul.org

Lecture

Intradiscal decompression techniques for LBP and radiculopathy

Lumbar radiculopathy due to herniated nucleus pulposus (HNP) is associated with severe morbidity and pain. A lumbar HNP compresses the nerve roots and mechanical and inflammatory mechanisms cause pain. The outcome after a microdiscectomy is worse in
patients with small hernias than in those with sequestrated hernias, and this has led to a rise in the popularity of minimally invasive procedures for the treatment of herniated discs. Recently, with the increasing knowledge of spinal anatomy and the evidence that conventional procedures have not always been useful, there has been a tendency to carry out minimally invasive procedures for the treatment of disc herniation, which can be advantageous in terms of early recovery, early return to daily life, short operational times, relatively fewer surgical traumas, and less pain.

Percutaneous disc decompression (PDD) methods are based on the principle that the removal of small amounts of discoid tissue will result in significant pain relief by reducing intradiscal pressure, as pressure on the nerve will be decreased and radicular findings will be reduced. There is also evidence that PDD can lead to a reduction in patients’ disability and increased safety.

Possible complications are thermal injuries, root injury, discitis, endplate damage, dural injury, meningitis, infection, increase in pain, and muscle spasm. All patients are given antibiotics for 7 days for prophylaxis of infection. So as to minimize direct nerve root irritation or damage during the procedure, patients are kept awake and conscious, being in communication with the surgeon. Dural ruptures may sometimes occur and the treatment is hydration, rest, and medication. An epidural blood patch should be planned for patients with remaining complaints of dural rupture.

Since 1998, intradiscal electrothermocoagulation (IDET) procedure has been performed and the reported incidence of complications is low. The American Society of Interventional Pain Physicians concluded in their 2007 evidence-based practice guidelines in the management of CLBP that the evidence for IDET was moderate for short-term and long-term pain relief. In addition, the North American Spine Society suggests that for less disabled patients with annular tears or protrusions <3 mm–4 mm and relatively well-preserved disc heights, IDET would seem to be a reasonable primary option treatment.

In contrast to IDET, there is far less literature on radiofrequency ablation (RFA) and intradiscal biacuplasty (IDB) procedures. There are little data on the effectiveness of RFA and IDB, and the evidence is limited for both procedures regarding whether they are effective in relieving discogenic chronic LBP. Further high-quality surveys are needed to assess the effectiveness of RFA and IDB and to provide efficient evidence for their use in the management of chronic LBP.
According to the results of many studies, nucleoplasty is regarded as a potentially effective treatment approach in patients with LBP and radiculopathy. Increased success rates have been reported and average pain reduction is significant, while the procedure is safe and well tolerated from the patients.

We retrospectively analyzed 73 patients who underwent RFTC nucleoplasty or targeted disc decompression (TDD) and found that there was a significant reduction in VAS and FRI scores at all the measurement time points. Our results indicate that minimally invasive procedures, such as nucleoplasty and TDD, are effective and safe methods that can be used in hernia nucleus pulposus as an alternative to surgery. TDD resulted in lower pain scores. These procedures can yield a more rapid and long-term functional recovery, decrease analgesic requirements, and increase quality of life.

Focal ablation of herniated discs using a navigable disc decompression device (L-disq) is worth considering for relieving pain related to lumbar HNP. L-Disq is a safe and efficient procedure in patients with HNP when applied by an experienced practitioner because of its short duration, its own moving probe, and the opportunity to visualize the inside of the disc. We aimed to evaluate the efficacy of percutaneous decompression therapy by using intradiscal navigable electrodes on pain and functional movement index in patients with herniated nucleus pulposus (HNP). We retrospectively analyzed a total of 209 patients with protrusive lumbar disc herniation underwent percutaneous ablation decompression treatment using an intradiscal routable electrode (L-Disq) in our pain clinic. We suggest that L-Disq may be considered as an appropriate option with a low risk of complications in pain management in cases of lumbar disc herniation whom are resistant to conservative methods.

Disc-FX (percutaneous discectomy and intradiscal RF ablation-coagulation) may be helpful in selected patients with symptomatic degenerative disc disease or herniated nucleus pulposus providing favorable outcomes lasting up to 2 years or more. The results were more favorable in patients with easier access to disc space.

A single low dose of TNF alpha-blocker etanercept does not seem to be an effective treatment for chronic radicular or discogenic low back pain. However, no serious side effects were observed.

Patients treated with autologous cultured mesenchimal stem cells (MSCs) for lower back pain with radicular symptoms in the setting of degenerative disc disease (DDD) reported minor adverse events and significant improvements in pain, function, and overall
subjective improvement through 6 years of follow-up. Small molecule therapy, especially in combination with cell implantation, holds promise for the treatment of degenerative disc diseases.

In conclusion, patients with low back pain and radiculopathy, non-responsive to conventional therapy may be considered for mechanical disc decompression in the chronic pain treatment algorithm. The evidence for various modes of percutaneous disc decompression is limited to fair for nucleoplasty and targeted disc decompression, and limited for automated percutaneous lumbar decompression (APLD), percutaneous lumbar disc decompression, and decompressor. APLD and percutaneous lumbar disc decompression, Disc-FX, and nucleoplasty are recommended in selected cases. Based on the current evidence synthesis, the evidence for IDET and biaculoplasty is fair and limited for discTRODE in the treatment of DDD. IDET and biaculoplasty may be performed in a selected group of patients with discogenic pain non-responsive to conservative modalities including epidural injections. Intradiscal TNF alpha-blocker etanercept or other disease modifying antirheumatic drugs seems to be non promising in degenerative disc disease for now, however patients treated with autologous cultured MSCs for lower back pain with radicular symptoms in the setting of DDD holds promise for the treatment of degenerative disc diseases.

REFERENCES
Jan van Zundert, MD, PhD, FIPP
Biographical Sketch

Jan Van Zundert is anesthesiologist, since 2005 head of the Multidisciplinary Pain Centre of the Hospital Oost Limburg, Belgium and appointed in 2019 as a full professor in Pain Medicine at the Maastricht University Medical Centre, The Netherlands. He obtained in 1990 the doctoral degree in Medicine at the Catholic University of Leuven, Belgium, completed a 5 years residency in anesthesiology and reanimation at the University hospital Antwerp and specialized in pain medicine at the Radboud University Nijmegen. In 2005 he defended the PhD thesis at the Maastricht University: “The use of pulsed radiofrequency in the treatment of chronic pain”. He followed a 2 postgraduate training in Health Policy and Management at the Catholic University of Leuven and in 2016 he also completed a postgraduate training in Health Law and Health Ethics at the University of Antwerp and wrote a dissertation on “The scope and enforceability of practice guidelines” He authored almost 100 publications in PubMed indexed journals. He was (co)author of 38 book chapters. He holds functions in the editorial board of several journals and is the past editor of the Dutch and English version of the guidelines “Evidence based interventional pain medicine according to clinical diagnoses”. He is member of the editorial board of the “Evidence based interventional pain medicine, according to clinical diagnoses: Update 2018” He held several functions in the board of the World Institute of Pain (WIP).
Lecture

The Consensus Guideline for Managing Facet Joint Pain

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<tr>
<th>GRADE B</th>
<th>MODERATE LEVEL OF CERTAINTY</th>
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<tr>
<td>✔️</td>
<td>25% pain relief from MBB before RFA</td>
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<tr>
<td>✔️</td>
<td>Anticoagulation medications should be continued before facet MBB and RFA</td>
</tr>
<tr>
<td>✔️</td>
<td>Repeat RFA in patients with 3-6 months of relief, up to 2x per year</td>
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<th>LOW-TO-MODERATE LEVEL OF CERTAINTY</th>
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<tr>
<td>✔️</td>
<td>Sedation should not be routinely used before MBB</td>
</tr>
<tr>
<td>✔️</td>
<td>Use fluoroscopy or CT for RFA</td>
</tr>
<tr>
<td>✔️</td>
<td>Lumbar facet MBB as diagnostic and prognostic tests before RFA</td>
</tr>
<tr>
<td>✔️</td>
<td>Electrode in an orientation parallel or near-parallel to the nerve</td>
</tr>
<tr>
<td>✔️</td>
<td>Motor stimulation may increase safety and effectiveness</td>
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<tr>
<th>GRADE C</th>
<th>LOW-TO-MODERATE LEVEL OF CERTAINTY</th>
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<tr>
<td>#1</td>
<td>Single block before RFA, although using multiple blocks may improve RFA outcomes</td>
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<tr>
<td>💯</td>
<td>3-month trial of different conservative treatments before facet joint interventions</td>
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<tr>
<td>🍌</td>
<td>Lumbar MBB ≤ 0.5 mL IA injections &lt;1.5 mL</td>
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<tr>
<td>🍌</td>
<td>Larger lesions increase the chance of capturing nerves</td>
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<tr>
<td>🍌</td>
<td>Sensory stimulation should be used with single lesions</td>
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<tr>
<td>🍌</td>
<td>Real-time contrast injection to r/o intravascular uptake</td>
</tr>
<tr>
<td>🍌</td>
<td>Injection of steroid after RFA may prevent neuritis</td>
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<tr>
<td>🍌</td>
<td>Interference with implanted electrical devices</td>
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Kris Vissers, MD, Phd, FIPP
Biographical Sketch

K. Vissers is anesthesiologist, professor in Pain and Palliative Medicine and chairman of the Radboud Expertise Center of Pain and Palliative Medicine of the Radboud University Nijmegen Medical Centre in the Netherlands. He is also scientific chairman of the Department of Anesthesiology, Pain and Palliative Medicine of this University.

He obtained his graduation in Medical Sciences at the University of Antwerp (Belgium) and his graduation as an Anesthesiologist at the University of Antwerp and the Catholic University of Leuven (Belgium). He specialized in pain management in Leuven (B) and Nijmegen (NL), with Prof. Dr. H. Adriaensen, Prof. Dr. H. van Aken, Prof. Dr. L. Booij and Prof. Dr. B. Crul. As of 1995 he was staff member of the University affiliated Hospital EastLimburg, Genk, Belgium where he founded the Multidisciplinary Pain Center. He was visiting consultant for the palliative care unit and hospital team. He was responsible consultant for the home care organization in Palliative Care “Pallium”.

He obtained the degree of doctor in the medical sciences Ph.D. in 2004 at Radboud University Nijmegen Medical Center, The Netherlands. He graduated as Fellow in Interventional Pain Practice in 2004.

Since 2005, he is Professor in Pain and Palliative Medicine. He is ex officio board member of the Benelux Chapter of the World Institute of Pain and the first chairman of the Dutch Society of Multidisciplinary Palliative Care Professionals, chapter of the European Association of Palliative Care (EAPC) and board member of the Dutch Pain Society, chapter of the IASP.

He is Past president of the World Institute of Pain.

His main research interests are (1) translational approach and research on neuropathic pain, (2) practical and ethical application of palliative sedation, (3) proactive care and identification of patients in a palliative trajectory, (4) quality indicators of the
organization and practice of pain and palliative medicine, (5) e-health and telemedicine in transmural care programs (6) decision making in palliative care and end-of-life and (7) the description of competences and performances for the education and training in pain and palliative medicine.

He succeeded in getting external funding resources for major research projects in pain and palliative care (Europall, 7th framework, ZonMw, NWO, KWF).

He is the author of more than 160 publications in international peer reviewed journals and contributed to more than 20 textbooks. He contributes to local and national education with regular articles in Belgian and Dutch journals for physicians and for the lay public. He is frequently asked as speaker during national and international congresses and teaching courses. He is promotor of 26 PhD students in his topics of interest. He organized 7 international congresses and workshops. He was member of several scientific committees of congresses.

Lecture
Interventional Pain as a Specialty around the World

Chronic pain is a burden for patients and society. Historically, pain was considered as a symptom of a specific disease and was expected to disappear when the disease was taken care of and consequently was healed. However, the opposite was and is happening every day: acute pain is often an important warning sign, but chronic pain is considered as a disease in its own right having dramatic effects on the quality of life of patients as was formulated by Marshall Devor and David Niv, both important scientific leaders of the World Institute of Pain. Since the 60’s it becomes evident that the diagnosis and treatment of chronic pain needs a new specialty of Pain Medicine which should face the challenges in healthcare and the multidimensional treatment approaches of chronic pain. Important leaders of WIP, IASP and other scientific societies explored the different areas of pain treatment including the interventional techniques as they were introduced by anesthesiologists and neurosurgeons early on in the 70’s. Several national societies of medical specialists in the world reacted by installing dedicated educational and training programs and formulated criteria for an official accredited training in Pain Medicine. Since 1993, the World Institute of Pain organizes structurally educational conferences, workshops and examinations to improve the quality of medical specialists involved in the daily practice and treatment of patients with
chronic pain. WIP’s mission is “to bring together the most recognized experts in the field of pain medicine throughout the world for the advancement and standardization of interventional pain practice and improved standards of care for pain patients”. This mission will impact the quality of interventional pain strategies all over the world by inspiring and starting the global implementation of Pain Medicine as a specialty. During the lecture specific examples and recommendations will be formulated to help WIP membership implement the specialty of pain medicine in their geographical areas!

**Meltem Uyar, MD, FIPP**

**Biographical Sketch**


I have proficiency certificates of World Institute of Pain - Fellow of Interventional Pain Practice, (FIPP 2007) and Turkish Society of Algology (2007). I had my subspecialty proficiency in Algology branch in 2011. I am also a member of WIP Turkey chapter (treasure) and WIP Registered Turkish Section (Affiliated to World Institute of Pain)

I am a member of Turkish Anesthesiology and Reanimation Society, Turkish Society of Algology (board member), International Association for the Study of Pain (IASP), European Society of Regional Anesthesia (ESRA), Turkish Palliative Care Society (chief of board).

I am a member of editorial board of Turkish Anesthesiology and Reanimation Society Journal, Adnan Menderes University, Faculty of Medicine Journal, Ege Medicine Journal, Izmir Tepecik Hospital Journal, Izmir State Hospital Journal, Turkish Society of Algology Publication, Society of Anesthesia specialists.

I am a board member of Turkish Society of Algology (since 2005), Turkish Society of Algology Proficiency Board (since 2007), Turkish Palliative Care Society (since 2007) and
chief of Ege University Faculty of Medicine Palliative Care Center. I have 30 international publications, 50 national publications and 35 chapters of national books.

**Lecture**

**Cervical pain and radiculopathy**

Neck pain imposes a considerable personal and socioeconomic burden—it is one of the top five chronic pain conditions in terms of prevalence and years lost to disability—yet it receives a fraction of the research funding given to low back pain. Although most acute episodes resolve spontaneously, more than a third of affected people still have low grade symptoms or recurrences more than one year later, with genetics and psychosocial factors being risk factors for persistence. Nearly half of people with chronic neck pain have mixed neuropathic-nociceptive symptoms or predominantly neuropathic symptoms. Few clinical trials are dedicated solely to neck pain. Muscle relaxants and non-steroidal anti-inflammatory drugs are effective for acute neck pain, and clinical practice is mostly guided by the results of studies performed for other chronic pain conditions. Among complementary and alternative treatments, the strongest evidence is for exercise, with weaker evidence supporting massage, acupuncture, yoga, and spinal manipulation in different contexts. For cervical radiculopathy and facet arthropathy, weak evidence supports epidural steroid injections and radiofrequency denervation, respectively. Surgery is more effective than conservative treatment in the short term but not in the long term for most of these patients, and clinical observation is a reasonable strategy before surgery.

Mert AKBAS is an associative professor of Anesthesiologist and Pain management physician at Akdeniz University, School of Medicine in Turkey. He joined the Akdeniz University faculty in 1993. He is the associative proffesor and clinical instructor at division of Algology. He earned his medical degree at Akdeniz University, School of Medicine in 1999. He completed his anesthesia residency in Akdeniz University, Antalya, and started his pain management fellowship program first as an observer doctor at Texas Tech University Health Sciences Center in
Pain Management Clinic, Lubbock/TX-USA and later on as an clinical doctor in Istanbul University Faculty of Medicine, Division of Algology, Istanbul/TURKEY between the years 2004 and 2006. He is Algology Board certified and pain specialist in Turkey is since 2007, and FIPP since 2006. His areas of clinical interest are neuromodulation and decompressive neuroplasty. Dr. Akbas is the current chair of WIP Turkish Section and a member of WIP, INS and Turkish Society of Algology as well as the Liaison for WIP in the recently established Turkish Affiliated Section of World Institute of Pain organizing this meeting.

**Lecture**

**Spinal Epidural Endoscopic or Pertutaneous Adhesiolysis. What is the difference?**

As our population ages and the rate of spine surgery continues to rise, the use epidural lysis of adhesions has emerged as a popular treatment to treat spinal stenosis and failed back surgery syndrome.

There is moderate evidence that percutaneous lysis of adhesions is more effective than conventional ESI for both failed back surgery syndrome, spinal stenosis, and lumbar radiculopathy.

The technique involves
- Performing an epidurogram to identify filling defects indicative of epidural scarring
- Advancing a catheter in the anterolateral epidural space into the adhesions
- Injecting hyaluronidase to facilitate adhesiolysis and normal saline to hydraulically separate adhesions and wash out epidural proinflammatory cytokines
- Injecting anti-inflammatory and analgesic drugs and hypertonic saline to treat pain, inflammation and edema.

Epidural neuroplasty with the racz catheter is effective for pain reduction and functional improvement in patients with chronic low back and lower extremity pain refractory to conservative treatment and decreases the need for surgical treatment.
Miles Day, MD
Biographical Sketch
Miles R. Day, MD, DABA, DABA-PM, FIPP: Dr. Day is the medical director of The Pain Center at Grace Clinic, pain fellowship program director at Texas Tech University HSC, and the Traweek-Racz Tenured Endowed Professor in Pain Research in the Department of Anesthesiology at Texas Tech University Health Sciences Center in Lubbock. He is a diplomate of the American Board of Anesthesiology with subspecialty certification in Pain Medicine. He serves on the editorial boards of Pain Practice and Pain Physician. He is the past-president of the Texas Pain Society and past-chair of the Board of Examination for the World Institute of Pain. He has authored or co-authored numerous book chapters and peer-reviewed articles, and has presented nationally and internationally on various subjects in interventional pain medicine. His specialty focus is chronic pain of the face.

Lecture
Interventional pain procedures for cranial pain
Craniofacial pain can be the bane of existence for many people. Conservative care typically involves medications and physical therapy. In refractory cases, interventional procedures can be beneficial. Neural targets include the stellate and sphenopalatine ganglia, and the trigeminal nerve/ganglion. These blocks require detailed knowledge of the actual and radiographic anatomy, and can be performed using ultrasound and fluoroscopy. Diagnostic blocks with local anesthetics with and without steroids are done first followed by a more definitive technique if the block is successful. Risks are minimal in properly trained physicians.
Monique Steegers, MD, FIPP

Biographical Sketch

Monique Steegers is a professor since 2019 for pain- and palliative care at the Amsterdam University Medical Centers location VUmc and is connected as an anesthesiologist pain-specialist to the anesthesiology department. She wants to improve the quality of life especially for patients with acute and chronic pain and for those patients having pain and cancer in every stage of their life. This is by improving pain practices by education and research. She is internationally known as the registrar of an interventional pain-exam, the FIPP and the CIPS from the WIP, and she is the chair of the Benelux chapter of the INS.

Before working in Amsterdam she worked more than 27 years at the Radboud university medical center, in the end as an associate professor and a junior principal lecturer.

Main interest of research and education: multidisciplinary education of pain and supportive medicine, the mechanism of chronification, the treatment of acute- and chronic neuropathic pain and pain caused by cancer.

Lecture

Interventional management of cancer pain

Pain is particularly prevalent among patients with cancer between 30 - 70% of the patients have pain in different phases of the cancer treatment until advanced cancer and the last stage of life. The three-step WHO ladder has its limitations, and cancer pain is often under treated.

Appropriate interventional cancer pain therapies complement conventional pain management by reducing the need for systemic opioid therapy and its associated toxicity; however, these therapies are often underutilized.

This lecture reviews techniques, indications, complications, and outcomes of the most common interventional approaches for the management of cancer-related pain. These approaches include intrathecal drug delivery, neurolysis of the celiac, superior hypogastric, cordotomy and lower end block.
In conclusion interventions form an integral part in providing pain relief in complex cancer pains. Oncologists and palliative care physicians are to be educated on the usefulness and timing of interventions in the management of complex cancer pain.

Oğuz Karaeminoğulları, MD
Biographical Sketch

Oguz Karaeminogullari was born in Ankara in 1966. He graduated from Izmir Bornova Anatolian High School in 1985 and from Hacettepe University Faculty of Medicine in 1991. He started residency Uludag University Faculty of Medicine, Orthopedics and Traumatology Department in 1993 and received his Orthopedics and Traumatology Specialist in 1997. Dr. Karaeminogullari received his associate professor degree in 2006 and professor degree in 2021.

He started to work as Assistant Professor of Orthopedics at Abant Izzet Baysal University in 1997. In 2001, he visited Hospital for Sports Injuries, in Ludensheit Germany, for arthroscopic surgery fellowship. Dr. Oguz Karaeminogullari, started to work at Baskent University Ankara Hospital in 2002, was selected as an International Spine Fellow in the same year and received training in various Spine Surgery clinics in France. From 2006, he is working at Bayindir Hospital as chief of Orthopaedics and Traumatology. Additionally, he is Deputy General Manager, Medical Director and Quality Coordinator of Bayindir Healthcare Group.

Dr Karaeminogullari is interested in spine surgery for more than 20 years. Since 8 years his main practice is minimal invasive spine surgery. He attended courses in very well known endoscopic spine surgery centers. He is accepted as an expert in endoscopic spine surgery and gives lectures in national and international meetings. He is executive board member of International Society of Endoscopic Spine Surgery.

Lecture
Transformaminal Endoscopic Discectomy

Percutaneous endoscopic lumbar discectomy (PELD) is an effective treatment option for lumbar disc herniation. The discectomy is performed through a posterolateral approach through the triangle of Kambin. There is less damage to muscular and ligamentous
structures allowing for faster rehabilitation, shorter hospital stay and earlier return to function. Percutaneous endoscopic discectomy can be performed by Transforaminal, Posterolateral and Interlaminar techniques.

A total of 493 consecutive patients with lumbar disc herniation were treated with PELD between 2012-2020. Among them, 399 patients were treated transforaminal, 24 by PL and 70 by Interlaminar technique. Foraminoplasty was performed in 84 of 399 Transforaminal PELD patients for mostly L5-S1 disc herniations. Clinical outcomes were evaluated using the visual analogue scale (VAS), and modified Macnab criteria. The mean VAS score for back pain improved from 7.4 to 1.8. The rate of excellent or good outcomes was 92% according to modified Macnab criteria. There was 1 Kauda Equina Syndrome in Interlaminar group and 3 dysesthesia in the Transforaminal group.

PELD is an effective surgical technique for lumbar disc herniation with acceptable complication rates. PELD yields typical advantages of minimally invasive procedures such as shorter operation time, shorter hospital stay, and earlier return to ordinary life.

*Bayindir Hospital Department of Orthopedics and Traumatology, Ankara, Turkey

Pakize Kirdemir, MD, FIPP
Biographical Sketch

Prof. Dr. Pakize Kirdemir MD, FIPP. Graduated from Istanbul University Cerrahpasa Medical School in 1985. In 1995 Kirdemir completed her residency in Anesthesiology at Ankara University. Her interests remain in pain management. She trained in Chronic Pain Medicine at MD Anderson Cancer Center for Cancer Pain and at Hermann Hospital for Chronic Pain Management at University of Texas, USA. She has certification as FIPP since 2006. She is an anesthesiologist currently chief of the Anesthesiology and the Pain Clinic of Suleyman Demirel University, Isparta.
Biographical Sketch

Dr. Staats was the founder of the division of Pain Medicine in the Department of Anesthesiology and Critical Care Medicine at Johns Hopkins University, where he was the division chief and director for over a decade. In this capacity he was youngest major division chief in the history of Johns Hopkins Hospital and was the first anesthesiologist to obtain surgical at any academic university in the US. In 2003 he became a founding partner in Premier Pain Centers in New Jersey which merged with National Spine and Pain Centers (NSPC), the largest pain practice in the United States where he is currently the chief medical officer. He serves on the United States Health and Human Services Pain task force subcommittee whose mandate is to define appropriate treatment societies for pain in America.

He is boarded by the American Society of Anesthesiology, the American Board of Interventional Pain Physicians (ABIPP) and the World Institute of Pain (FIPP). He has edited or co-authored 11 textbooks on pain medicine and written approximately four hundred articles, book chapters and abstracts on neuromodulation and the diagnosis and management of complex pain problems. His publications have appeared in prominent journals including JAMA, Lancet, Anesthesiology, Pain Medicine and others. He has chaired hundreds of meetings devoted to pain and neuromodulation around the world. He is the Past President of (ASIPP), The American Society of Interventional Pain Physicians, the North American Neuromodulation Society (NANS), the southern pain society the New Jersey Society of interventional pain physicians (NJSIPP), and was the first chair of the American Society of Anesthesia’s committee on Interventional pain. He is currently chairman of the Board of Examination World Institute of Pain (WIP) and is on the Executive Board of the WIP. He is also the recipient of the President’s Distinguished Service Award and the Excellence in Pain Management Award from the Southern Pain Society, as well as the Physician of the Year Award from both the West Virginia Society of Interventional Pain and the New York and New Jersey Societies of Interventional Pain. He has received distinguished service awards from AAPM, ASIPP, NANS and NJSIPP, and the Raj award for excellence (2017) and the lifetime achievement award (2018) from the American Society.

Lecture
Vagus Nerve stimulation

Ramsin Benyamin, MD, FIPP

Biographical Sketch
- Founder (in 1998), Millennium Pain Center in Illinois
- Clinical Assistant Professor of Surgery, College of Medicine, University of Illinois, 2007–2021
- Adjunct Professor of Clinical Research, Department of Psychology, Illinois Wesleyan University
- Section Editor, (Neuromodulation), Journal of Pain

Editorial Board:
- Journal of Pain Practice
- Journal of Pain Physician
- Journal of Opioid Management
- Journal of Case Reports in Pain Medicine

Reviewer for journals of: Neurosurgery, Neuromodulation, Pain Medicine, Neuro-Interventional Surgery
- more than 200 publications and book chapters
- more than 100 research projects
- more than 200 invited lectures at national and international scientific meetings
- more than 40 course director of national scientific meetings
Aging population contributes to higher prevalence of lumbar spinal stenosis, to the point that it has become the number one reason for performing spine surgery in elderly. Early stage treatments like physical therapy and epidural steroids provide a good option for the milder cases of spinal stenosis. As the disease progresses, patients’ quality of life and functionality is reduced, requiring further and more advanced treatments. During this presentation, initially focused on few diagnostic pearls, the value of accurate diagnosis is emphasized as the most important predictor of successful treatment. Recently, two minimally invasive procedures have been recommended to fill the gap between less invasive treatments like epidural injections, and more invasive surgical options. The current literature and procedure description of Mild and Superion will be reviewed as viable options in the algorithm.

Ricardo Plancarte, MD, FIPP

Biographical Sketch

- Specialist in Anesthesiology and Interventional Pain Management.
- Chairman and founder of Pain Clinic Department in National Institute of Cancer on México (INCan)
- Main Professor of Pain Medicine and Interventional Pain Management postgraduate courses, which are dictate at the National Cancer Institute and endorse by Universidad Nacional Autonoma de México (UNAM). Contributing to the formation of 5–6 human resources per year in each of the courses, with 180-trained fellows in 34 years from Mexico and different countries of Latin America. Additionally, he has participated as main author or co-author of research works carried out as part of the academic requirements of these two courses.

Academic Director of the Latin American Academy of Pain Interventionists (ALMID). Full member of the National Academy of Medicine and the National System of Researchers, México (SNI). Member of the Editorial Committees of Pain Practice Journal in Spain,
Inter Institutional Boding and Divulgation Council of the National Academy of Medicine and of the submission committee of Surgery for Academy Medicine in Mexico.

He has 86 articles published in various indexed journals, and participated in the broadcasting of his work in workshops, conferences and national and international symposiums.

Author of nine books in the area of anesthesiology, pain medicine and palliative care, as well as 90 chapters of texts to these areas.

Tools for evaluating scientific production:
- Google Scholar Citation Report, show that their work has been up to date, referred to at least 2836 times, with H index = 20 and i10 index= 36, Ranked in 390 position of the scientists in Mexican Institutions, according to Webometrics (Ranking of scientists in Mexican Institutions according to their GSC public profiles (Ranking Web of Universities).

Lecture
Osteoplasties: Beyond the Vertebral Body

Ricardo Ruiz-Lopez, MD, FIPP
Biographical Sketch

President, Founder and CEO of CLINICA VERTEBRA, Barcelona Spine & Pain Surgery Center, (1987) Barcelona, Spain
Executive Member of the Board of Directors of HOSPITAL DELFOS, (since 1997) Barcelona, Spain

Founder (1993) and President (2011-2013) of the WORLD INSTITUTE OF PAIN, USA,

He is both a neurosurgeon and pain specialist, very well known. His personal expertise is on radiofrequency lesioning, an innovator on this field as well as regenerative treatment in chronic pain syndromes.
Lecture
An overview of the speciality of pain medicine

Contemporary societies have redefined patient’s needs in spinal pain management, looking for innovative techniques and devices that provide increased effectiveness and reduce approach–related morbidity by sparing normal anatomic spinal structures. Interventional pain management procedures had its precursors before 1980, with the implementation of neurosurgical techniques such as dorsal rhizotomy (1899), cordotomy (1912), spinal cord stimulation (1967) and the DREZ procedure (1976). In an analogous fashion, since the advent of endoscopy in the 1960’s, spinal endoscopic techniques became popular after 1980. Meanwhile, anaesthesiologists specialised in pain management performed epidural steroid injections, selective nerve root blocks, sympathetic and celiac plexus blocks and intradiscal procedures in an attempt to relieve pain unresponsive to conservative treatments. After 1980 radiofrequency thermocoagulation was used widely for spinal pain, as well as other locations, together with implantable pumps for spinal infusion. Neurosurgeons started using brain stimulation for more complex pain syndromes. Over the last 15 years, such advances as vertebroplasty, pulsed radiofrequency, improved adhesiolysis techniques and thermal annuloplasty have merged with the use of minimally invasive spinal surgery by spine orthopedists and neurosurgeons. In industrialised countries, 85% of patients will be adequately treated with interventional spinal pain procedures, while 10 to 12% will require minimally invasive spinal surgery (MISS). Therefore, only 3 to 5% or even less percentage of patients will eventually need conventional open surgery.

The current situation requires an overlapping of two sub-specialties through the development of a speciality in interventional pain management and MISS.

There are several areas where these 2 sub-specialties overlap, such as chronic pain due to degenerative vertebral articular disease, degenerative disc disease, disc herniation with endoscopy, degenerative spinal stenosis, correction of axial deformities by means of percutaneous procedures, and vertebral fractures, among others.

The “new patient” in the current society is not any more a passive subject, but more informed, demanding and active. The law of patient’s autonomy makes him the true protagonist of his medical assistance, and he demands techniques that generate less pain, less scar and disability, as he relies on the new technologies.
For achieving these goals, it is mandatory to redefine new directions of the specialty by improving technology, education and training. It has to be redefined the clinical standards for chronic spinal pain care, as well as international standards for spinal care clinical settings. Finally, validation of new evidence-based technologies will lead us to spread this new specialty around the world encouraging us to establishing a renewed curricula for interventional spine specialty according to the above mentioned advances.

REFERENCES


Lecture
Progress in regenerative procedures for pain

Degenerative diseases of the lumbar spine are a common cause of pain and disability. In addition to becoming increasingly prevalent, chronic pain resulting from spinal degenerative disease significantly increases the socioeconomic burden. This disorder is commonly correlated with the complex heterogeneous condition on spine degeneration. The clinical approach to managing degenerative spinal pain can be highly variable. Treatments are aimed towards pain relief and return to an acceptable level of function. Over the past three decades, epidural corticosteroid injections have become a standard part of the multimodal pain management algorithm for the treatment of low back pain, whether as a result of chronic spinal deformities or conditions associated with acute radicular pain. It is also frequently used in the treatment of chronic degenerative spine pain. Despite the widespread use of epidural corticosteroid injections as a modality for chronic degenerative spine pain, its effectiveness remains controversial.

Platelet-rich plasma (PRP) is a biological blood-derived product with platelet concentrations (3 to 5 times greater than the physiological baseline). PRP has the potential to
enhance the body's natural healing response through the various actions of its related growth factors. In recent years, PRP injections have gained considerable attention as a treatment modality for musculoskeletal conditions, such as tendinopathies, muscle strain injuries, ligament tears, and osteoarthritis. Although the therapeutic role of PRP in discogenic pain and facet joint pain is promising, the role of epidural PRP injections is less clear.

The study was conducted to compare the efficacy and safety between leucocyte-rich platelet-rich plasma (LR-PRP) and corticosteroid in fluoroscopically guided caudal epidural injection for patients with complex chronic lumbar spinal pain. A prospective randomized controlled double blinded study was designed. Fifty eligible patients with complex chronic degenerative spinal pain were randomly assigned with a 1:1 allocation ratio to receive caudal epidural injection of corticosteroid (triamcinolone acetonide, 60 mg) or LR-PRP (isolated from 60 mL autologous blood) under fluoroscopic guidance. Levels of low back pain, quality of life, and complications (or adverse effects) were evaluated at 1, 3, and 6 months after treatment. Pain levels and quality of life were assessed using the VAS and Short Form 36-Item Health Survey (SF-36), respectively. Results: No significant difference was shown at baseline between the 2 groups. Compared with the pretreatment values, there were significant reductions in the VAS score in both groups. A significantly lower VAS score at 1-month follow-up was detected in patients who received corticosteroid injection. However, the scores were lower in the LR-PRP group at 3- and 6-month follow-up. SF-36 responses at 6 months showed significant improvement in all domains in the LR-PRP group. There were no complications or adverse effects related to treatment at 6-month follow-up in either group. Both autologous LR-PRP and corticosteroid for caudal epidural injections under fluoroscopic guidance are equally safe and therapeutically effective in patients with complex chronic lumbar spinal pain. However, LR-PRP is superior to corticosteroid for a longer pain-relieving effect and improvement in quality of life.

Key words: degenerative spinal pain, epidural-caudal injection, leucocyte-rich platelet-rich plasma, low back pain

REFERENCE


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Biographical Sketch

Sacit Güleç is a professor of Anesthesiology and pain management physician at Medical School of Eskişehir Osmangazi University in Eskişehir, Turkey. He graduated from Ankara University, Medical School in 1986. He completed his anesthesia residency in Medical school of Anadolu University. He has been in Istanbul University Faculty of Medicine, Division of Algology, Istanbul/TURKEY (1994) and Texas Tech University Health Sciences Center in Pain Management Clinic, Lubbock/TX-USA (1999) as an observer physician for his pain management fellowships. He is Algology Board certified since 2007 and also pain specialist since 2011. He was the director of Eskişehir Osmangazi University Algology Department between 1994-2017. He is the past president of Turkish Society of Regional Anesthesia. His areas of clinical interests are neuromodulation and low back pain. Dr Gulec is the member of Turkish society of Anesthesiology and Reanimation, Turkish Society of Algology, Turkish Society of Regional Anesthesia and European Society of Regional Anesthesia.

Lecture
Progress in regenerative procedures for pain

Neuropathic pain in peripheral tissues may be generated and maintained by sensory nerves alone or by aberrant actions of the sympathetic nervous system on sensory nerves. In the latter instance, the pain is commonly referred to as sympathetically maintained pain (SMP). Patient response to sympathetic blockade may be used to differentiate these pain types, although the validity of this method remains controversial. Interventional sympathetic block techniques such as a stellate ganglion block (SGB) for upper extremity SMP and lumbar sympathetic block (LSB) for lower extremity SMP have
shown benefits. Sympathetic blockade can also occur by injection of local anesthetic in the epidural space. Additionally, spinal cord stimulation and dorsal root ganglion stimulation are also utilized for treatment of CRPS when more conservative approaches have failed.

The stellate ganglion block is often performed at the C6 level for safety reasons to include avoiding the vertebral artery and inadvertent pneumothorax. Fluoroscopy allows only identification of bony surfaces. Important soft tissue structures such as vascular structures or the esophagus cannot be seen with fluoroscopy. Ipsilateral oblique approach which offers a better safety profile than AP approach by minimizing the chance of intravascular or esophageal injection. In US guidance block direct visualization of the vessels and soft tissues minimizes the risk of accidental needle punctures and resulting injury. Lumbar sympathetic blocks have been used to treat SMP of the lower limb. Lumbar sympathetic blocks are classically performed at the L3 level, or the L2 and L4 levels with fluoroscopy guidance. Ultrasound, MRI, and CT may also be used for guidance.

Spinal cord stimulation (SCS) and dorsal root ganglion stimulation (DRG) may be effective treatment options when more conservative approaches have failed. DRG stimulation seems like in greater success than SCS.
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