

2013 Index by Issue

January/February 2013, Volume 16, Number 1

HEALTH POLICY

-  A Prospective Evaluation of Psychotherapeutic and Illicit Drug Use in Patients Presenting with Chronic Pain at the Time of Initial Evaluation E1
Laxmaiah Manchikanti, MD, Kimberly A. Cash, RT, Vidyasagar Pampati, MSc, and Bert Fellows, MA

INTERVENTIONAL TECHNIQUES

-  Repeated Onabotulinumtoxin-A Injections Provide Better Results than Single Injection in Treatment of Painful Bladder Syndrome E15
Hann-Chorng Kuo, MD
-  Cigarette Smokers Have Reduced Risk for Post-Dural Puncture Headache E25
Heather S. Dodge, BA, Nosakhare N. Ekhator, MS, Lena Jefferson-Wilson, MD, Mark Fischer, BA, Ian Jansen, BA, Paul S. Horn, PhD, William E. Hurford, MD, and Thomas Geraciotti, MD
-  Endoscopic Transforaminal Discectomy for an Extruded Lumbar Disc Herniation E31
Gabriele P. Jasper, MD, Gina M. Francisco, BSc, and Albert E. Telfeian, MD, PhD
- ◆ Cooled Sacroiliac Radiofrequency Denervation for the Treatment of Pain Secondary to Tumor Infiltration: A Case-Based Focused Literature Review 1
Chitra Ramasubba, MD, and Steven P. Cohen, MD
 - ◆ Prevalence and Influence of Diagnostic Criteria in the Assessment of Hypogonadism in Intrathecal Opioid Therapy Patients 9
Rui V. Duarte, PhD, Jon H. Raphael, MD, Mourad Labib, FRCPath, Jane L. Southall, RGN, and Robert L. Ashford, PhD
 - ◆ Efficacy of Pulsed Radiofrequency in the Treatment of Thoracic Postherpetic Neuralgia from the Angulus Costae: A Randomized, Double-Blinded, Controlled Trial 15
Ma Ke, PhD, Fan Yinghui, MS, Jin Yi, PhD, Huang Xuehua, MS, Liu Xiaoming, PhD, Cheng Zhijun, MS, Huang Chao, MS and Wang Yingwei, MD, PhD

NON-INTERVENTIONAL TECHNIQUES

- ◆ Efficacy of Tapentadol ER for Managing Moderate to Severe Chronic Pain 27
Marc Afilalo, MD, FACEP, FRCPC, and Bart Morlion, MD, PhD, DEAA
- ◆ Tramadol Induced Paradoxical Hyperalgesia 41
Seong Heon Lee, MD, Soo Young Cho, MD, Hyung Gon Lee, MD, PhD, Jeong Il Choi, MD, PhD, Myung Ha Yoon, MD, PhD, and Woong Mo Kim, MD, PhD
- ◆ Influence of CYP2D6 Activity on Pre-emptive Analgesia by the N-Methyl-D-Aspartate Antagonist Dextromethorphan in a Randomized Controlled Trial of Acute Pain 45
Georg B Ehret, MD, Youssef Daali, PhD, Jocelyne Chabert, PhD, Michela Rebsamen, PhD, Adriana Wolff, MD, Alain Forster, MD, Fouzia Moursli, MD, Daniel Fritschy, MD, Michel F. Rossier, PhD, Valérie Piguet, MD, Pierre Dayer, MD, Marianne Gex-Fabry, PhD, and Jules A Desmeules, MD
- ◆ Proximal Ischemia is a Frequent Cause of Exercise-Induced Pain in Patients with a Normal Ankle To Brachial Index at Rest 57
Marie Gernigon, BSc, Johann Marchand, MD, Nafi Ouedraogo, MD, Georges Leftheriotis, MD, PhD, Jean M. Picquet, MD, PhD, and Pierre Abraham, MD, PhD
- ◆ A Negative Correlation Between Hyperalgesia and Analgesia in Patients with Chronic Radicular Pain: Is Hydromorphone Therapy a Double-Edged Sword? 65
Erica Suzan, MSc, Elon Eisenberg, MD, Roi Treister, PhD, May Haddad, MSc and Dorit Pud, PhD
- ◆ Opioids and Risk of Type 2 Diabetes in Adults with Non-Cancer Pain 77
Lin Li, MD, PhD, Soko Setoguchi, MD, DrPH, Howard Cabral, PhD, and Susan Jick, DSc

January/February 2013 (cont.), Volume 16, Number 1

- ◆ Doctor Shopping Reveals Geographical Variations In Opioid Abuse 89
Sandra Nordmann, MSc, Vincent Pradel, MD, PhD, Maryse Lapeyre-Mestre, MD, PhD, Elisabeth Frauger, PharmD, PhD, Vanessa Pauly, PhD, Xavier Thirion, MD, PhD, Michel Mallaret, PhD, Emilie Jouanrus, PharmD, and Joëlle Micallef, MD, PhD
-  Effectiveness of Percutaneous Transforaminal Adhesiolysis in Patients with Lumbar Neuroforaminal Spinal Stenosis E37
Chan-Hong Park, MD, PhD, and Sang Ho Lee, MD, PhD

LETTERS TO THE EDITOR

-  A Systematic Review of RCTs with Nucleoplasty - An Update E45
Volker Konig, Dipl.-Ges.-Ök., Philipp Maximilian Eichen, cand. med., Nils Achilles, cand. med., and Ralph Mosges, MD, PhD, FAAA
-  Possible Mechanism of Spinal T9 Stimulation -Induced Acute Renal Failure: A Virally Mediated Transsynaptic Tracing Study in Transgenic Mouse Model E47
Hong-bing Xiang, MD, PhD, Cheng Liu, MD, Da-wei Ye, MD, PhD, and Wen-Zhen Zhu, MD, PhD
-  Percutaneous Osteoplasty for the Treatment of a Painful Osteochondral Lesion of the Talus: How to Prevent Hydroxyapatite Bone Cement Leakage E50
Heng Wang, MD, Weimin Jiang, PhD, and Huilin Yang, PhD

March/April 2013, Volume 16, Number 2**EDITORIAL PERSPECTIVE**

-  Spine Pain Classification: A Solution E51
Rinoo V. Shah, MD

INTERVENTIONAL TECHNIQUES

- ◆ Post Dural Puncture Headache Following Intrathecal Drug Delivery System Placement 101
Stephanie A. Neuman, MD, Jason S. Eldridge, MD, Wenchun Qu, MD, PhD, Eric D. Freeman, MD, and Bryan C. Hoelzer, MD
- ◆ Intravesical Botulinum Toxin A Injections Do Not Benefit Patients with Ulcer Type Interstitial Cystitis 109
Cheng-Ling Lee, MD, and Hann-Chorng Kuo, MD
- ◆ The Effect of Oxygen Administration on Regional Cerebral Oxygen Saturation after Stellate Ganglion Block on the Non-Blocked Side 117
Eun Mi Kim, MD, Kyung Bong Yoon MD, PhD, Jae Hoon Lee MD, Duck Mi Yoon MD, PhD, and Do Hyeong Kim, MD
- ◆ Bilateral Thoracic Splanchnic Nerve Radiofrequency Thermocoagulation for the Management of End-stage Pancreatic Abdominal Cancer Pain 125
Dimitrios Papadopoulos, MD, Georgia Kostopanagiotou, MD, PhD, and Chrysanthi Batistaki, MD, PhD
- ◆ The Influence of Pain Sensitivity on the Symptom Severity in Patients with Lumbar Spinal Stenosis 135
Ho-Joong Kim, MD, Bo-Gun Suh, MD, Dong-Bong Lee, MD, Gun-Woo Lee, MD, Dong-Whan Kim, MD, Kyoung-Tak Kang, MS, Bong-Soon Chang, MD, Choon-Ki Lee, MD, and Jin S. Yeom, MD
- ◆ The Role of Lumbosacral Retrograde Neuromodulation in the Treatment of Painful Disorders 145
Jose De Andres, MD, PhD, Luciano Perotti, MD, Vicent Luis Villaneuva-Perez, MD, Juan Marcos Asensio-Samper, MD, and Gustavo Fabregat-Cid, MD
- ◆ Distribution Range of Cervical Interlaminar Epidural Injections: A Comparative Study with 2.5 mL 5mL, and 10 mL of Contrast 155
Sang Eun Lee, MD, Han Bun Joe, MD, Jae Hong Park, MD, In Kyong Yi, MD, Yi Hwa Choi, MD, Kyung Ream Han, MD, PhD, and Chan Kim, MD, PhD
- ◆ Prevalence of Vitamin D Deficiency in Patients with Lumbar Spinal Stenosis and Its Relationship with Pain 165
Tae-Hwan Kim, MD, Byung Ho Lee, MD, Hwan-Mo Lee, MD, Seung-Hwan Lee, MD, Jin-Oh Park, MD, Hak-Sun Kim, MD, Seok Woo Kim, MD, and Seong-Hwan Moon, MD

-  Does Acetaminophen Activate Endogenous Pain Inhibition in Chronic Fatigue Syndrome/Fibromyalgia and Rheumatoid Arthritis? A Double-Blind Randomized Controlled Cross-Over Trial E61
Mira Meeus, PhD, Kelly Ickmans, PT, Filip Struyf, PhD, Linda Hermans, PT, Jorinde Oderkerk, PT, Luc S. DeClerck, PhD, Greta Moorkens, PhD, Guy Hans, PhD, Sofie Grosemans, FN and Jo Nijs, PhD

-  Down-Regulation of Insulin Signaling is Involved in Painful Diabetic Neuropathy in Type 2 Diabetes E71
Zhen-Zhen Kou, MD, Chun-Yu Li, BS, Jun Tang, MD, Jia-Chen Hu, BS, Juan Qu, MD, Yong-Hui Liao, MD, Sheng-Xi Wu, MD, Hui Li, MD and Yun-Qing Li, MD, PhD

NON-INTERVENTIONAL TECHNIQUES

-  Pharmacovigilance: A Review of Opioid-Induced Respiratory Depression (OIRD) in Chronic Pain Patients E85
Albert Dahan, MD, PhD, Frank Overdyk, MD, Terry Smith, PhD, Leon Aarts, MD, PhD, and Marieke Niesters, MD
-  The Effects of Pressure on Arthritic Knee in the Rat Model of CFA-induced Arthritis E95
Sung Tae Koo, OMD, PhD, Chang-Hyung Lee, Dr., PhD, Hyunseok Choi, PhD, Yong Il Shin, MD, PhD, Ki Tae Ha, OMD, PhD, Hanna Ye, BA, and Hyun Bo Shim, BA

CASE REPORTS

-  Spinal Cord Stimulation for Radicular Pain Following Retained Bullet in the Spinal Canal E103
John C. Keel, MD, Mary E. Lau, BS, and Padma Gulur, MD
-  Complications after Intrathecal Drug Delivery Due to the Underlying Malignancy in Two Patients with Intractable Cancer Pain E107
Thomas Chai, MD, Brian M. Bruel, MD, Kent H. Nouri, MD, and Larry C. Driver, MD

March/April 2013, Volume 16, Number 2 (cont.)



Emergent Intrathecal Baclofen Withdrawal after Pseudomeningocele Aspiration

E113

Timothy R. Smith, MD, PhD, Divakar S. Mithal, PhD, Anne Park, MD, Angela Bohnen, MD, Joseph Adel, MD, and Joshua M. Rosenow, MD

LETTERS TO THE EDITOR



Intrathecal Clonidine Administration and Erectile Dysfunction: What is the Link?

E119

Rocco Salvatore Calabro, MD, PhD, and Placido Bramanti, MD



• Response

Gershon Koman, Dr. med.

E120



On Helicobacter pylori Eradication and Migraine: What is the Accuracy of the Diagnostic Method?

E121

Rinaldo Pellicano, MD, and Sharmila Fagoonee, PhD



Subsequent Vertebral Fracture Risk is Not Contraindication to Vertebroplasty or Kyphoplasty

E122

Shi-Liang Han, MD, Shuang-Lin Wan, MD, Qing-Tao Li, MD, Ning-Jie Chen, MD, and Fei Yang, MD

IPM GUIDELINES SPECIAL ISSUE April 2013, Volume 16, Number 2S

GUIDELINES

- ◆ An Update of Comprehensive Evidence-Based Guidelines for Interventional Techniques in Chronic Spinal Pain. Part I: Introduction and General Considerations S1
Laxmaiah Manchikanti, MD, Frank J.E. Falco, MD, Vijay Singh, MD, Ramsin M. Benyamin, MD, Gabor B. Racz, MD, Standiford Helm II, MD, David L. Caraway, MD, Aaron K. Calodney, MD, Lee T. Snook, MD, Howard S. Smith, MD, Sanjeeva Gupta, MD, Stephen P. Ward, MD, FRCA, FFFMRCA, Jay S. Grider, DO, PhD, and Joshua A. Hirsch, MD
- ◆ An Update of Comprehensive Evidence-Based Guidelines for Interventional Techniques in Chronic Spinal Pain: Part II: Guidance and Recommendations S49
Laxmaiah Manchikanti, MD, Salahadin Abdi, MD, PhD, Sairam Atluri, MD, Ramsin M. Benyamin, MD, Mark V. Boswell, MD, PhD, Ricardo M. Buenaventura, MD, David A. Bryce, MD, Trish A. Burks, LPT, David L. Caraway, MD, Aaron K. Calodney, MD, Kimberly A. Cash, RT Paul J. Christo, MD, Steven P. Cohen, MD, James Colson MS, MD, Ann Conn, MD, Harold J. Cordner, MD, Sareta Coubarous, DO, Sukdeb Datta, MD, Timothy R. Deer, MD, Sudhir A. Diwan, MD, Frank J.E. Falco, MD, Bert Fellows, MA, Stephanie C. Geffert, MLIS, Jay S. Grider, DO, PhD, Sanjeeva Gupta, MD, Haroon Hameed, MD, Mariam Hameed, MD, Hans Hansen, MD, Standiford Helm II, MD, Jeffrey W. Janata, PhD, Rafael Justiz, MD, Alan D. Kaye, MD, PhD, Marion Lee, MD, Kavita N. Manchikanti, MD, Carla D. McManus, RN, BSN, Obi Onyewu, MD, Allan T. Parr, MD, Vikram Patel, MD, Gabor B. Racz, MD, Nalini Sehgal, MD, Manohar Sharma, MD, FRCA, FFFMRCA, Thomas T. Simopoulos, MD, Vijay Singh, MD, Howard S. Smith, MD, Lee T. Snook, MD, John Swicegood, MD, Ricardo Vallejo, MD, PhD, Stephen P. Ward, MD, FRCA, FFFMRCA, Bradley W. Wargo, DO, Jie Zhu, MD, and Joshua A. Hirsch, MD

SYSTEMATIC REVIEWS

- e** Percutaneous Lumbar Mechanical Disc Decompression Utilizing Dekompressor®: An Update of Current Evidence SE1
Laxmaiah Manchikanti, MD, Vijay Singh, MD, Aaron K. Calodney, MD, Standiford Helm II, MD, Timothy R. Deer, MD, Ramsin M. Benyamin, MD, Frank J.E. Falco, MD, and Joshua A. Hirsch, MD
- e** An Update of the Systematic Assessment of Mechanical Lumbar Disc Decompression with Nucleoplasty SE25
Laxmaiah Manchikanti, MD, Frank J.E. Falco, MD, Ramsin M. Benyamin, MD, David L. Caraway, MD, Timothy R. Deer, MD, Vijay Singh, MD, Haroon Hameed, MD, and Joshua A. Hirsch, MD
- e** An Update of the Systematic Appraisal of the Accuracy and Utility of Lumbar Discography in Chronic Low Back Pain SE55
Laxmaiah Manchikanti, MD, Ramsin M. Benyamin, MD, Vijay Singh, MD, Frank J.E. Falco, MD, Haroon Hameed, MD, Richard Derby, MD, Lee R. Wolfer, MD, Standiford Helm II, MD, Aaron K. Calodney, MD, Sukdeb Datta, MD, Lee T. Snook, MD, David L. Caraway, MD, Joshua A. Hirsch, MD, and Steven P. Cohen, MD
- e** Diagnostic Utility of Selective Nerve Root Blocks in the Diagnosis of Lumbosacral Radicular Pain: Systematic Review and Update of Current Evidence SE97
Sukdeb Datta, MD, Laxmaiah Manchikanti, MD, Frank J.E. Falco, MD, Aaron K. Calodney, MD, Sairam Atluri, MD, Ramsin M. Benyamin, MD, Ricardo Buenaventura, MD, and Steven P. Cohen, MD
- e** Spinal Endoscopic Adhesiolysis in Post Lumbar Surgery Syndrome: An Update of Assessment of Evidence SE125
Standiford Helm, MD, Salim M. Hayek, MD, PhD, James Colson, MS, MD, Pradeep Chopra, MD, Timothy R. Deer, MD, Rafael Justiz, MD, Mariam Hameed, MD, and Frank J.E. Falco, MD
- e** An Updated Review of Automated Percutaneous Mechanical Lumbar Discectomy for the Contained Herniated Lumbar Disc SE151
Laxmaiah Manchikanti, MD, Vijay Singh, MD, Frank J.E. Falco, MD, Aaron K. Calodney, MD, Obi Onyewu, MD, Standiford Helm II, MD, Ramsin M. Benyamin, MD, and Joshua A. Hirsch, MD
- e** Intrathecal Infusion Systems for Long-Term Management of Chronic Non-Cancer Pain: An Update of Assessment of Evidence SE185
Frank J.E. Falco, MD, Vikram Patel, MD, Salim M. Hayek, MD, PhD, Timothy R. Deer, MD, Stephanie C. Geffert, MLIS, Jie Zhu, MD, Obi Onyewu, MD, Sareta Coubarous, DO, Howard S. Smith, MD, and Laxmaiah Manchikanti, MD
- e** An Update of Evaluation of Intravenous Sedation on Diagnostic Spinal Injection Procedures SE217
Howard S. Smith, MD, James Colson MS, MD, and Nalini Sehgal, MD

IPM GUIDELINES SPECIAL ISSUE April 2013, Volume 16, Number 2S (cont.)



Percutaneous Lumbar Laser Disc Decompression: An Update of Current Evidence

SE229

Vijay Singh, MD, Laxmaiah Manchikanti, MD, Aaron K. Calodney, MD, Peter S. Staats, MD, Frank J.E. Falco, MD, David L. Caraway, MD, Joshua A. Hirsch, MD, and Steven P. Cohen, MD



Assessment of Bleeding Risk of Interventional Techniques: A Best Evidence Synthesis of Practice Patterns and Perioperative Management of Anticoagulant and Antiplatelet Therapy

SE261

Laxmaiah Manchikanti, MD, Frank J.E. Falco, MD, Ramsin M. Benyamin, MD, David L. Caraway, MD, Standiford Helm II, MD, Bradley W. Wargo, DO, Hans Hansen, MD, Allan T. Parr, MD, Vijay Singh, MD, John R. Swicegood, MD, Howard S. Smith, MD, David M. Schultz, MD, Yogesh Malla, MD, and Joshua A. Hirsch, MD

May/June 2013, Volume 16, Number 3**EDITORIAL PERSPECTIVE**

- ◆ Refinement in Evidence Synthesis of Percutaneous Adhesiolysis 177
Standiford Helm II, MD, Ramsin M. Benyamin, MD, and Frank J.E. Falco, MD
-  Recommendations for Reducing Infection in the Practice of Implanting Spinal Cord Stimulation and Intrathecal Drug Delivery Devices: A Physician's Playbook E125
Timothy R. Deer, MD, and David A. Provenzano, MD

HEALTH POLICY REVIEW

-  Cost Utility Analysis of Caudal Epidural Injections in the Treatment of Lumbar Disc Herniation, Axial or Discogenic Low Back Pain, Central Spinal Stenosis, and Post Lumbar Surgery Syndrome E129
Laxmaiah Manchikanti, MD, Frank J.E. Falco, MD, Vidyasagar Pampati, MSc, Kimberly A. Cash, RT, Ramsin M. Benyamin, MD, and Joshua A. Hirsch, MD
-  Value-Based Interventional Pain Management: A Review of Medicare National and Local Coverage Determination Policies E145
Laxmaiah Manchikanti, MD, Frank J.E. Falco, MD, Ramsin M. Benyamin, MD, Standiford Helm II, MD, Vijay Singh, MD, and Joshua A. Hirsch, MD

INTERVENTIONAL TECHNIQUES

- ◆ Percutaneous Epidural Lysis of Adhesions in Chronic Lumbar Radicular Pain: A Randomized, Double-Blind, Placebo-Controlled Trial 185
Ludger Gerdesmeyer, MD, PhD, Stefan Wagenpfeil, PhD, Christof Birkenmaier, MD, Andreas Veihelmann, MD, PhD, Matthias Hauschild, MD, Klaus Wagner, MD, PhD, Munjed Al Muderis, MD, Hans Gollwitzer, MD, PhD, Peter Diehl, MD, PhD, and Andreas Toepfer, MD
- ◆ Transforaminal Hypertonic Saline for the Treatment of Lumbar Lateral Canal Stenosis: 197
A Double-Blinded, Randomized, Active-Control Trial
Won UK Koh, MD, Seong Soo Choi, MD, PhD, Seung Yong Park, MD, Eun Young Joo, MD, Sung Hoon Kim, MD, Jae Do Lee, MD, Jae Young Shin, Jeong Hun Suh, MD, PhD, Jeong Gil Leem, MD, PhD, and Jin-Woo Shin, MD, PhD
- ◆ Effects of Transforaminal Balloon Treatment in Patients with Lumbar Foraminal Stenosis: 213
A Rondomized, Controlled, Double-Blind Trial
Sung-Hoon Kim, MD, Woo-Jong Choi, MD, Jeong Hun Suh, MD, Sang-Ryong Jeon, MD, PhD, Chang Ju Hwang, MD, Won-Uk Koh, MD, Chung Lee, MD, PhD, Jeong Gil Leem, MD, PhD, Sang Chul Lee, MD, PhD, and Jin-Woo Shin, MD, PhD
- ◆ A Retrospective Evaluation of the Clinical Success of Transforaminal Endoscopic Discectomy 225
with Foraminotomy in Geriatric Patients
Gabriele P. Jasper, MD, Gina M. Francisco, BSc, and Albert E. Telfeian, MD, PhD
- ◆ Intravenous Infusions in Chronic Pain Management 231
Boleslav Kosharsky, MD, Wilson Almonte, MD, Naum Shaparin, MD, Marco Pappagallo, MD, and Howard S. Smith, MD
- ◆ Infectious Complications Related to Intrathecal Drug Delivery System and Spinal Cord 251
Stimultor System Implantations at a Comprehensive Cancer Pain Center
Mitchell P. Engle, MD, PhD, Baominh P. Vinh, MD, Nusrat Harun, MS, and Dhanalakshmi Koyalagunta, MD
- ◆ Neuropathic Pain in Spinal Cord Injury 259
Güldal F Nakipoglu-Yüzer, MD, Nermin Atçıl, MD, and Nese Ozgirgin, MD
- ◆ The Impact of Psychological Factors on Outcomes for Spinal Cord Stimulation: 265
An Analysis with Long-term Follow-up
Tilman Wolter, MD, Ingrid Fauler, MD, and Kristin Kieselbach, MD
-  Stimulation of the Greater Occipital Nerve: Anatomical Considerations and Clinical Implications E181
Oliver M. Mueller, MD, Vincent Hagel, MD, Karsten Wrede, MD, Marc Schlamann, MD, Hans-Peter Hohn, PhD, Ulrich Sure, MD, and Charly Gaul, MD
-  Anatomical Basis of Ulnar Approach in Carpal Tunnel Injection E191
Dong Hwee Kim, MD, PhD, Ji Eun Jang, MD, and Byung Kyu Park, MD, PhD
-  Targeted Nanoparticles that Mimic Immune Cells in Pain Control Inducing Analgesic and Anti-inflammatory Actions: A Potential Novel Treatment of Acute and Chronic Pain Conditions E199
Susan Hua, PhD, and Peter J. Cabot, PhD

May/June 2013, Volume 16, Number 3 (cont.)



- Pre-Emptive and Multi-Modal Perioperative Pain Management May Improve Quality of Life in Patients Undergoing Spinal Surgery E217

Byung Ho Lee, MD, Jin-Oh Park, MD, Kyung-Soo Suk, MD, Tae-Hwan Kim, MD, Hwan-Mo Lee, MD, PhD, Moon-Soo Park, MD, Seung-Hwan Lee, MD, Sangun Park, PhD, Ju-Yeon Lee, Su-Kyoung Ko, Seong-Hwan Moon, MD, PhD

NON-INTERVENTIONAL MODALITIES



- The Role of Hydromorphone and OPRM1 in Postoperative Pain Relief with Hydrocodone E227

Mark V. Boswell, MD, PhD, M. Elaine Stauble, MD, Gary E. Loyd, MD, Loralie Langman, PhD, DABCC, Bronwyn Ramey-Hartung, PhD, Richard N. Baumgartner, PhD, William W. Tucker, BS, and Saeed A. Jortani, PhD, DABCC



- Tapentadol Immediate Release Versus Oxycodone Immediate Release for Treatment of Acute Low Back Pain E237

David Biondi, DO, Jim Xiang, PhD, Carmela Benson, MS, Mila Etropolski, MD, Bruce Moskowitz, MD, and Christine Rauschkolb, MD, PhD



- High-Dose Daily Opioid Administration and Poor Functional Status Intensify Local Anesthetic E247

Injection Pain in Cancer Patients

Shin Hyung Kim, MD, Duck Mi Yoon, MD, PhD, Kwan Woong Choi, MD, and Kyung Bong Yoon, MD, PhD



- Pupillometry: The Influence of Gender and Anxiety on the Pain Response E257

Adriana L. Bertrand, MSc, João Batista Santos Garcia, PhD, Erica B. Viera, MSc, Alcione M. Santos, PhD, and Romero H. Bertrand MSc

BASIC SCIENCE



- Animal Models of Disc Degeneration and Major Genetic Strategies E267

Fu Sun, MD, Ji-Ning Qu, MD, and Yin-Gang Zhang, MD, PhD

CASE CONTROL STUDIES



- Autonomic Response to Pain in Patients with Chronic Whiplash Associated Disorders E277

Margot De Kooning, MSc, Liesbeth Daenen, MSc, Patrick Cras, MD, PhD, Yori Gidron, PhD, Nathalie Roussel, PhD, and Jo Nijs, PhD



- Common Anatomical Variation in Patients with Idiopathic Meralgia Paresthetica: A High Resolution E287

Ultrasound Case-Control Study

Tomas Moritz, MD, Helmut Prosch, MD, Dominik Berzacy, MD, Wolfgang Happak, MD, Doris Lieba-Samal, MD, Maria Bernathova, MD, Eduard Auff, MD, Prof., and Gerd Bodner, MD

CASE REPORTS



- Magnetic Resonance Imaging of the Lumbar Spine in a Patient with a Spinal Cord Stimulator E295

Thomas T. Simopoulos, MD, and Jatinder S. Gill, MD



- Needle Placement for Piriformis Injection Using 3-D Imaging E301

Steven R. Clendenen, MD, Shawn A. Candler, MD, Michael D Osborne, MD, Scott C Palmer, MD, Stephanie Duench, PhD, Laura Glynn, BSc, MRT (N), and Salim M Ghazi, MD



- Using Pulsed Radiofrequency Ablation to Treat Pain Associated with a Tumor Involving the Brachial Plexus E311

Humair Rana, MD, and Gerald Matchett, MD



- Infrapatellar Saphenous Neuralgia – Diagnosis and Treatment E315

Andrea M. Trescot, MD, Michael N. Brown, MD, and Helen W. Karl, MD



- Transversus Abdominis Plane Neurolysis with Phenol in Abdominal Wall Cancer Pain Palliation E325

Rodolfo Gebhardt, MD, and Kenneth Wu, MD

July/August 2013, Volume 16, Number 4**EDITORIAL PERSPECTIVE**

-  The Effects of Randomized Controlled Trials on Vertebroplasty and Kyphoplasty:
A Square Peg in a Round Hole E331
Sheri L. Albers, DO and Richard E. Latchaw, MD

HEALTH POLICY ISSUES

-  Assessment of the Growth of Epidural Injections in the Medicare Population from 2000 to 2011 E349
Laxmaiah Manchikanti, MD, Vidyasagar Pampati, MSc, Frank J.E. Falco, MD, and Joshua A. Hirsch, MD
-  Assessment of the Escalating Growth of Facet Joint Interventions in the Medicare Population in the United States from 2000 to 2011 E365
Laxmaiah Manchikanti, MD, Vidyasagar Pampati, MSc, Vijay Singh, MD, and Frank J.E. Falco, MD
-  Utilization and Growth Patterns of Sacroiliac Joint Injections from 2000 To 2011 E379
in the Medicare Population
Laxmaiah Manchikanti, MD, Hans C. Hansen, MD, Vidyasagar Pampati, MSc, and Frank J.E. Falco, MD

SYSTEMATIC REVIEWS

- ◆ A Systematic Review and Meta-analysis of Randomized Controlled Trials of Unilateral Versus Bilateral Kyphoplasty for Osteoporotic Vertebral Compression Fractures 277
Li-yu Yang, MD, Xing-Li Wang, MD, Long Zhou, MD, and Qin Fu, MD, PhD
- ◆ Central Sensitization In Urogynecological Chronic Pelvic Pain: A Systematic Literature Review 291
Serap Kaya, MSc, PT, Linda Hermans, MSc, PT, Tine Willems, PT, PhD, Nathalie Roussel, PT, PhD, and Mira Meeus, PT, PhD

VERTEBRAL AUGMENTATION

-  The Use of Advanced Imaging and Representation of Worker's Compensation in Vertebral Augmentation: A Single-Center Comparison with the INVEST Trial E391
Akriti P. Saxena, MD, Ariel E. Hirsch, MD, Albert J Yoo, MD, Christopher Gilligan, MD and Joshua A. Hirsch, MD
-  Percutaneous Vertebral Augmentation Assisted by Peek Implant in Painful Osteolytic Vertebral Metastasis Involving the Vertebral Wall: Experience on 40 Patients E397
Giovanni Carlo Anselmetti, MD, Antonio Manca, MD, Sean Tutton, MD, Gabriele Chiara, MD, Alexios Kelekis, MD, Francis Rocco Facchini, MD, Filippo Russo, MD, Daniele Regge, MD and Filippo Montemurro, MD
-  Vertebroplasty for the Compression of the Dorsal Root Ganglion Due to Spinal Metastasis E405
Jae Hee Woo, MD, Hahck Soo Park, MD, PhD, Jong In Han, MD, PhD, and Dong Yeon Kim, MD, PhD
-  Clinical Measurement of Intravertebral Pressure During Vertebroplasty and Kyphoplasty E411
Zhong-Liang Deng, MD, Yang Wang, MD, PhD, Fan Huang, MD, Liang Chen, MD, PhD, and Zhen-Yong Ke, MD
-  Symptomatic Cervical Vertebral Hemangioma Treated by Percutaneous Vertebroplasty E419
Wang Jian, MD
-  Vertebroplasty for Treatment of Osteolytic Metastases at C2 Using an Anterolateral Approach E427
Gang Sun, MD, PhD, Li-jun Wang, MD, Peng Jin, MD, Xun-Wei Liu, MD and Min Li, MD
- ◆ Vertebral Augmentation: Update on Safety, Efficacy, Cost Effectiveness and Increased Survival? 309
Ronil V. Chandra, MBBS, MMed, FRANZOCR, Albert J. Yoo, MD, and Joshua A. Hirsch, MD

INTERVENTIONAL TECHNIQUES

-  Intradiscal Pulsed Radiofrequency for Chronic Lumbar Discogenic Low Back Pain: A One Year Prospective Outcome Study Using Discoblock for Diagnosis E435
Sei Fukui, MD, PhD, Kazuhito Nitta, MD, Narihito Iwashita, MD, PhD, Hisashi Tomie, MD, Shuichi Nosaka MD, PhD, and Olav Rohof, MD, PhD

July/August 2013, Volume 16, Number 4 (cont.)

- ◆ Needle Position Analysis in Cases of Paralysis From Transforaminal Epidurals: Consider Alternative Approaches to Traditional Technique 321
Sairam Atluri, MD, Scott E. Glaser, MD, Rino Shah, MD, and Gururau Sudarshan, MD
- ◆ The Current State of Endoscopic Disc Surgery: Review of Controlled Studies Comparing Full-Endoscopic Procedures for Disc Herniations to Standard Procedures 335
Christof Birkenmaier, MD, Martin Komp, MD, Hansjörg F. Leu, MD, PD, Bernd Wegener, MD, and Sebastian Ruetten, MD, PD
- ◆ The Effect of Lumbar Sympathetic Ganglion Block on Gynecologic Cancer-Related Lymphedema 345
Jae Hee Woo, MD, Hahck Soo Park, MD, PhD, Seung Cheol Kim, MD, PhD, and Yun Hwan Kim, MD, PhD
- ◆ Preliminary Results of the Clinical Effectiveness of Percutaneous Adhesiolysis Using a Racz Catheter in the Management of Chronic Pain Due to Cervical Central Stenosis 353
Chan Hong Park, MD, PhD, Sang-Ho Lee, MD, PhD, and Sang-Chul Lee, MD, PhD
- ◆ Comparative Assessment of Different Percutaneous Endoscopic Interlaminar Lumbar Discectomy (PEID) Techniques 359
Hyeun Sun Kim, MD, PhD, and Jeong Yoon Park, MD, PhD
- ◆ Computed Tomography Guidance for Spinal Intervention: Basics of Technique, Pearls, and Avoiding Pitfalls 369
Vincent M. Timpone, MD, Joshua A. Hirsch, MD, Christopher J. Gilligan, MD, Ronil V. Chandra, MBBS FRANZCR

NON-INTERVENTIONAL TECHNIQUES

- ◆ Pain and its Interference with Daily Activities in Medical Oncology Outpatients 379
Nienke teBoveldt, MSc, Myrra Vernooij-Dassen, PhD, Nathalie Burger, BSc, Michiel IJsseldijk, BSc, Kris Vissers, MD, PhD, and Yvonne Engels, PhD

CASE REPORTS

- ◆ Permanent Lesion of the Lateral Femoral Cutaneous Nerve after Low-Volume Ethanol 96% Application on the Lumbar Sympathetic Chain 391
Werner Pennekamp, MD, Elena K. Krumova, MD, Georg P.D. Feigl, MD, Elke Frombach, MD, Volkmar Nicolas, Prof, MD, Andreas Schwarzer, MD, PhD, and Christoph Maier, Prof, MD
- ◆ Intracranial Hypotension Headache Caused by a Massive Cerebrospinal Fluid Leak Successfully Treated with a Targeted C2 Epidural Blood Patch: A Case Report 399
Kenneth T. Sykes, MD PhD, and Xiaobin Yi, MD
- ◆ Spinal Cord Stimulation Inhibits Cortical Somatosensory Evoked Potentials Significantly Stronger than Transcutaneous Electrical Nerve Stimulation 405
Tilman Wolter, MD, Kristin Kieselbach, MD, Ronen Sircar, MD, and Mortimer Gierthmuehlen, MD

LETTERS TO THE EDITOR

- | | | |
|---|---|-------------|
|  | Pulsed Radiofrequency for Chronic Abdominal Pain
Pravardhan Birthi, MD, Derek Calhoun, APRN, and Jay S. Grider, DO, PhD | E443 |
|  | Neuromuscular Ultrasound in Carpal Tunnel Syndrome: A Tool for Cutting a Gordian Knot
Antonios Kerasnoudis, MD | E446 |
|  | Preoperative Ultrasound of the MN-UA May Help to Identify Patients at Risk for Iatrogenic Lesion: In response
Kim, DH, Jang JE, Park BK | E448 |
|  | The Role of Interleukin 10 in the Associations between Migraine and Helicobacter pylori Infection
Joon Won Kang, MD, and Jae Il Shin, MD | E450 |
|  | ABSTRACTS | E451 |

- | | | |
|---|-------------------|------|
|  | AUTHOR GUIDELINES | E475 |
|---|-------------------|------|

September/October 2013, Volume 16, Number 5**POSITION STATEMENT**

- ◆ Physician Response to Medtronic's Position on the use of Off-Label Medications in the Synchromed Pump 415
Ali Rezai, MD, David Kloth, MD, Hans Hansen, MD, David Schultz, MD, Simon Thompson, MBBS, and Timothy Deer, MD

HEALTH POLICY

- ◆ Recommendations of the Medicare Payment Advisory Commission (MEDPAC) on the Health Care Delivery System: The Impact on Interventional Pain Management in 2014 and Beyond 419
Laxmaiah Manchikanti, MD, Ramsin M. Benyamin, MD, Frank J.E. Falco, MD, and Joshua A. Hirsch, MD
- ◆ Vertebral Augmentation Versus Conservative Therapy for Emergently Admitted Vertebral Compression Deformities: An Economic Analysis 441
Jonathan Flug, MD, Ann Hanford, MA, RN, and Orlando Ortiz, MD

REVIEWS

- ◆ Unilateral Versus Bilateral Balloon Kyphoplasty for Osteoporotic Vertebral Compression Fractures 447
Jun Lin, MD, PhD, Lei Zhang, MD, and Huilin Yang, MD, PhD
- ◆ Comparing Pain Reduction Following Vertebroplasty and Conservative Treatment for Osteoporotic Vertebral Compression Fractures: A Meta-analysis of Randomized Controlled Trials 455
Jintao Liu, MD, PhD, Xiaofeng Li, MD, PhD, Dezhong Tang, MD, PhD, Xuejun Cui, MD, PhD, Xiaochun Li, MD, Min Yao, MD, Penfei Yu, MD, Xiang Qian, MD, Yongjun Wang, MD, PhD, and Hong Jiang MD, PhD
-  Vertebroplasty Augmentation Procedures: Examining the Controversy E483
Arif Hussain, DO, and Michael Erdek, MD

INTERVENTIONAL TECHNIQUES

- ◆ A Randomized, Double-Blind, Active Control Trial of Fluoroscopic Cervical Interlaminar Epidural Injections In Chronic Pain of Cervical Disc Herniation: Results of a 2-Year Follow-Up 465
Laxmaiah Manchikanti, MD, Kimberly A. Cash, RT, Vidyasagar Pampati, MSc, Bradley W. Wargo, DO, and Yogesh Malla, MD
- ◆ Indications for Repeat Diagnostic Medial Branch Nerve Blocks Following a Failed First Medial Branch Nerve Block 479
Richard Derby, MD, Irina Melnik, MD, Jongwoo Choi, MD, and Jeong-Eun Lee, PT
- ◆ Evaluation of Interaction between a Spinal Cord Stimulator and Implanted Cardioverter-Defibrillator in a Swine Model 489
Gassan M. Chaiban, MD, Jennifer Cummings, MD, Mohammed Almualim, MD, and Joseph Atallah, MD
- ◆ Concordant Pressure Paresthesia During Interlaminar Lumbar Epidural Steroid Injections Correlates with Pain Relief in Patients with Unilateral Radicular Pain 497
Kenneth D. Candido, MD, Maunak V. Rana, MD, Ruben Sauer, MD, Lalida Chupatanakul, MD, Antony Tharian, MD, Vladimir Vasic, PhD, and Nebojsa Nick Knezevic, MD, PhD



- A Randomized, Double-Blind, Active-Controlled Trial of Fluoroscopic Lumbar Interlaminar Epidural Injections in Chronic Axial or Discogenic Low Back Pain: Results of a 2-Year Follow-Up E491
Laxmaiah Manchikanti, MD, Kimberly A. Cash, RT, Carla D. McManus, RN, BSN, Vidyasagar Pampati, MSc, and Ramsin M. Benyamin, MD



- Comparison of Balloon Kyphoplasty with the New Kiva® VCF System for the Treatment of Vertebral Compression Fractures E505
Lucia A. Otten, Rahel Bornemann, Tom R. Jansen, Koursh Kabir, MD, Peter H. Pennekamp, MD, Dieter C. Wirtz, MD, Brit Stuwe, and Robert Pflugmacher, MD



- Comparison Between Radiofrequency Targeted Vertebral Augmentation and Balloon Kyphoplasty in the Treatment of Vertebral Compression Fractures: Addressing Factors that Affect Cement Extravasation and Distribution E513
Bassem Georgy, MD



- Criteria for the Appropriate Treatment of Osteoporotic Vertebral Compression Fractures E819
Giovanni Carlo Anselmetti, MD, Jason Bernard, FRCS (Orth), Thomas Blattert, MD, Charles Court, MD, Daniel Fagan, FRCS, Hendrik Fransen, MD, Patrick Fransen, MD, Tarun Sabharwal, FRCR, Frédéric Schils, MD, Rupert Schupfner, MD, Mashhood Ali Siddiqi, MD, Herman Stoevelaar, MSc, PhD, and Christian Kasperk, MD, PhD

September/October 2013, Volume 16, Number 5 (cont.)

- e** Evaluation of Prognostic Predictors of Percutaneous Adhesiolysis Using a Racz Catheter for Post Lumbar Surgery Syndrome or Spinal Stenosis E531
Eunjoo Choi MD, Francis Sahngun Nahm, MD, and Pyung-Bok Lee, MD

- e** Ultrasound-Guided Trigeminal Nerve Block via the Pterygopalatine Fossa: An Effective Treatment for Trigeminal Neuralgia and Atypical Facial Pain E537
Antoun Nader, MD, Mark C. Kendall, MD, Gildasio S. De Oliveira Jr, MD, Jeffry Q. Chen, MD, Brooke Vanderby, MD, Joshua M. Rosenow, MD, and Bernard R. Bendok, MD

NON-INTERVENTIONAL MODALITIES

- ◆ Clinical and Radiological Characteristics of Concomitant Peripheral Arterial Obstructive Disease in Patients with Lumbar Spinal Stenosis 513
Seung-Hwan Han, MD, PhD, Chang-Hoon Jeon, MD, PhD, Doo-Hyung Lee, MD, Ho-Sik Choo, MD, and Nam-Su Chung, MD
- e** Combinations of Low-Dose Antidepressants and Low-Dose Pregabalin as Useful Adjuvants to Opioids E547 for Intractable, Painful Bone Metastases
Makoto Nishihara, MD, Young-Chang P Arai, MD, Yoshihiro Yamamoto, MD, Kikuyo Nishida, PhD, Maki Arakawa, PhD, Takahiro Ushida, MD, and Masahiko Ikeuchi, MD
- e** Dual Reuptake Inhibitor Milnacipran and Spinal Pain Pathways in Fibromyalgia Patients: E553 A Randomized Double-Blind Placebo-Controlled Trial
Alain Matthey, MD, Christine Cedraschi, PhD, Valerie Piquet, MD, Marie Besson, MD, Jocelyne Chabert, PhD, Youssef Daali, PharmD, Delphine Courvoisier, PhD, Agnes Montagne, MD, Pierre Dayer, MD, and Jules Desmeules, MD

BASIC SCIENCE

- e** Magnesium L-threonate Prevents and Restores Memory Deficits Associated with Neuropathic Pain by Inhibition of TNF- α E563
Jun Wang, PhD, Yong Liu, PhD, Li-Jun Zhou, PhD, Ying Wu, PhD, Fei Li, Kai-Feng Shen, PhD, Rui-Ping Pang, PhD, Xu-Hong Wei, PhD, Yong-Yong Li, and Xian-Guo Liu, PhD
- e** Chronic Constriction Injury Induced Long-Term Changes in Spontaneous Membrane-Potential Oscillations in Anterior Cingulate Cortical Neurons in Vivo E577
Li Ning, MD, Li-Qing Ma, MD, Zhi-Ru Wang, PhD, and Ying-Wei Wang, MD, PhD
- e** Catechol-O-Methyltransferase Val158Met Polymorphism is Associated with Pain and Disability, but not Widespread Pressure Pain Sensitivity, in Women with Carpal Tunnel Syndrome E591
César Fernández-de-las-Peñas, PT, PhD, Silvia Ambite-Quesada, PT, MSc, Ricardo Ortega-Santiago, PT, MSc, Almudena Martínez-Pérez, MD, Homid Fahandezh-Saddi Díaz, MD, Javier Martínez-Martín MD and Juan A. Pareja, MD, PhD
- e** Pulsed Radiofrequency Modulates Pain Regulatory Gene Expression Along the Nociceptive Pathway E601
Ricardo Vallejo, MD, PhD, Dana M. Tilley, MS, Joe Williams, PhD, Samantha Labak, BS, Luis Aliaga, MD, and Ramsin M. Benyamin, MD
- e** Intrathecal Lentivirus-mediated Transfer of Interleukin-10 Attenuates Chronic Constriction Injury-induced Neuropathic Pain through Modulation of Spinal High-mobility Group Box 1 in Rats E615
Zhenghua He, MD, Qulian Guo, MD, Muzhang Xiao, MD, Chunli He, MD, and Wangyuan Zou, MD, PhD

CASE REPORTS

- e** False Positive Radiographical Evidence of Pump Catheter Migration into the Spinal Cord E627
Simon Dardashti, MD, Eric Y Chang MD, Robert B Kim, MD, Kais I Alsharif, MD, Justin T. Hata, MD, and Danielle M. Perret, MD

LETTER TO THE EDITOR

- e** Using Pulsed Radiofrequency Ablation to Treat Pain Associated with a Tumor Involving the Brachial Plexus: A Molecular Mechanism E631
Hamid Namazi, MD
- e** Serotonin Syndrome with Perioperative Oxycodone and Pregabalin E632
Ho-kyung Song, MD, PhD

In Errata

A10

November/December 2013, Volume 16, Number 6**HEALTH POLICY**

- ◆ Accountable Interventional Pain Management: A Collaboration Among Practitioners, Patients, Payers, and Government E635
Laxmaiah Manchikanti, MD, Standiford Helm II, MD, Vijay Singh, MD, and Joshua A. Hirsch, MD

SYSTEMATIC REVIEWS

-  Prevalence of Pain Among Nonmedical Prescription Opioid Users in Substance Use Treatment E671
Populations: Systematic Review and Meta-analysis
Anna Lusted, BA, Michael Roerecke, PhD, Elliot Goldner, MD, Jürgen Rehm, PhD, and Benedikt Fischer, PhD
-  Drug Therapy for the Treatment of Chronic Nonspecific Low Back Pain: Systematic Review and E685
Meta-analysis
Joanne WY Chung, PhD, Yingchun Zeng, MPhil, and Thomas KS Wong, PhD
-  Comparative Efficacy and Safety of Six Antidepressants and Anticonvulsants in Painful E705
Diabetic Neuropathy: A Network Meta-analysis
Neelima Rudroju, MPharm, Dipika Bansal, MD, DM, Shiva Teja Talakkula, MPharm, Kapil Gudala, PhD, Debasish Hota, MD, DM, Anil Bhansali, MD, DM, and Babita Ghai, MD
- ◆ Antioxidant Therapy for Pain Relief in Patients with Chronic Pancreatitis: Systematic Review 521
and Meta-analysis
Guo-Hong Cai, MD, Jing Huang, MD, PhD, Yan Zhao, MD, Jing Chen, MD, Huang-Hui Wu, MD, Yu-Lin Dong, MD, PhD, Howard Smith, MD, PhD, Yun-Qing Li, MD, PhD, Wen Wang, MD, PhD, and Sheng-Xi Wu, MD, PhD

BASIC SCIENCE

- ◆ Antinociceptive Effect of Prostatic Acid Phosphatase in a Rat Model of Cancer-induced Bone Pain 533
Lei Chen, MD, Ling Zhu, MD, Kun Wang, MD, Wei Wang, MD, PhD, Xiao-Peng Mei, MD, PhD, Tao Liu, MD, PhD, Fu-Xing Zhang, MD, PhD, Wen Wang, MD, PhD, Tao Chen, MD, PhD, and Yunqing Li, MD, PhD
-  Gender Difference of Symptom Severity in Lumbar Spinal Stenosis: Role of Pain Sensitivity E715
Ho-Joong Kim, MD, Bo-Gun Suh, MD, Dong-Bong Lee, MD, Jae-Young Park, MD, Kyoung-Tak Kang, MS, Bong-Soon Chang, MD, Choon-Ki Lee, MD, and Jin S. Yeom, MD

INTERVENTIONAL TECHNIQUES

- ◆ Percutaneous Endoscopic Lumbar Discectomy for L5-S1 Disc Herniation: 547
Transformaminal versus Interlaminar Approach
Kyung-Chul Choi MD, PhD, Jin-Sung Kim MD, PhD, Kyeong-Sik Ryu MD, PhD, Byung Uk Kang, MD, Yong Ahn MD, PhD, and Sang-Ho Lee, MD, PhD
- ◆ Effects of Two Different Doses of Epidural Steroid on Blood Glucose Levels and Pain Control 557
in Patients with Diabetes Mellitus
Won Ho Kim, MD, Woo Seog Sim, MD, PhD, Byung Seop Shin, MD, PhD, Chul Joong Lee, MD, PhD, Hyun Seung Jin, MD, Jin Young Lee, MD, Hee Jin Roe, MD, Chung Su Kim, MD, PhD, and Sangmin M. Lee, MD, PhD
-  Needle Echogenicity in Ultrasound-Guided Lumbar Spine Injections: A Cadaveric Study E725
Michael Gofeld, MD, Daniel L Krashin, MD, and Sangmin Ahn, MD
-  Fluoroscopy Procedure and Equipment Changes to Reduce Staff Radiation Exposure 731
in the Interventional Spine Suite
Chris Plastaras, MD, Malathy Appasamy, MD, Yusuf Sayeed, MD, MEng, MPH, Coleen McLaughlin, RT, Jeremy Charles, MD, Anand Joshi, MD, MHA, Donald Macrion, MD, and Bryan Pukenas, MD

NON-INTERVENTIONAL TECHNIQUES

- ◆ Assessment of Neuropathic Pain in Patients with Cancer: The Interobserver Reliability. 569
An Observational Study in Daily Practice
Hans Timmerman, MSc, Irene Heemstra, MD, Annelies Schalkwijk, MSc, Constans Verhagen, MD, PhD, Kris Vissers, MD, PhD, and Yvonne Engels, PhD
- ◆ Objective Sensory Evaluation of the Spread of Complex Regional Pain Syndrome 581
Lara Edinger, DO, Robert J. Schwartzman, MD, Ayesha Ahmad, BS, Kirsten Erwin, BS, and Guillermo M. Alexander, PhD

November/December 2013, Volume 16, Number 6 (cont.)

◆ Can We Predict Addiction to Opioid Analgesics?	593
A Possible Tool to Estimate the Risk of Opioid Addiction in Patients with Pain	
Katrín Skala, PhD, Lukas Reichl, Wilfried Ilias, PhD, Rudolf Likar, PhD, Gabriele Grogl-Aringer, PhD, Christina Wallner, PhD, Golda Schlaff, PhD, Peter Herrmann, PhD, Otto Lesch, PhD, and Henriette Walter, PhD	
◆ A Comparison of Chronic Pain Prevalence in Japan, Thailand, and Myanmar	603
Toshihiko Sakakibara, MD, Zhuo Wang, MD, Permsak Paholpak, MD, Weerachai Kosuwon, MD, Myint Oo, MD and Yuichi Kasai, MD	
e Long-term Consequences of Acute Pain for Patients under Methadone or Buprenorphine Maintenance Treatment	E739
Vincent Bounes, MD, Aurore Palmaro, MSc, Maryse Lapeyre-Mestre, MD, and Anne Roussin, PharmD, PhD	
e Randomized Clinical Trial Evaluating Transdermal Ibuprofen for Moderate to Severe Knee Osteoarthritis	E749
Gyula Varadi, PhD, Zhen Zhu, PhD, Thomas Blattler, MD, Hans-Jörg Graf, MD, Manfred Hosle, MD, Alfons Loher, MD, Rolf Pokorny, MSc, MD, Diana Frey, MD, and Stephen G. Carter, PhD	

CASE STUDIES/SERIES

e Importance of Axial Migration of Spinal Cord Stimulation Trial Leads with Position	E763
Chong H. Kim, MD, Adam W. Green, MD, Drew E. Rodgers, MD, Mohammed A. Issa, MD, and Monica A. Ata, MD	
e A Novel Revision to the Classical Transnasal Topical Sphenopalatine Ganglion Block for the Treatment of Headache and Facial Pain	E769
Kenneth D. Candido, MD, Scott T. Massey, MD, Ruben Sauer, MD, Raheleh Rahimi Darabad, MD, and Nebojsa Nick Knezevic, MD, PhD	
e A Case Vignette Study to Assess the Knowledge of Pain Physicians of Neuropathic Cancer Pain: Room for Improvement	E779
Virginie Piano, MD, Michel Lanteri-Minet, MD, PhD, Monique Steegers, MD, PhD, Kees Besse, MD, Anne Donnet, MD, PhD, Stans Verhagen, MD, PhD, Chris Van Weel, MD, PhD, Yvonne Engels, MD, PhD, and Kris Vissers, MD, PhD	
e Permanent Implantation of Peripheral Nerve Stimulator for Combat Injury-related Ilioinguinal Neuralgia	E789
Diem Phuc T. Banh, DO, Pablo M. Moujan, MD, Quazi Haque, MD, and Tae-Hyung Han, MD	
e Pudendal Entrapment Neuropathy: A Rare Complication of Pelvic Radiation Therapy	E793
Foad Elahi, MD, Daniell Callahan, MD, Jeremy Greenlee, MD and Tammy L. Dann, MD	

LETTERS TO THE EDITOR

e Ultrasound-Guided Anterior Abdominal Cutaneous Nerve Block for the Management of Bilateral Abdominal Cutaneous Nerve Entrapment Syndrome (ACNES)	E799
Batistaki Chrysanthi, MD, PhD, Saranteas Theodosios, MD, PhD, Adoni Areti, MD, and Kostopanagiotou Georgia, MD, PhD	
e Paresthesia Coverage for Comparing the Inhibition of Somatosensory Evoked Potentials by Spinal Cord Stimulation and Transcutaneous Electrical Nerve Stimulation	E801
Michelangelo Buonocore, MD	
• In Response:	E802
Tilman Wolter, MD, and Mortimer Gierthmuehlen, MD	

ERRATA

609

INDICES

e Table of Contents Index	E805
e Authors Index	E817
e Key words Index	E824

2013 Index by Author

A

- Aarts, Leon E85
 Abdi, Salahadin S49
 Abraham, Pierre 57
 Achilles, Nils E45
 Adel, Joseph E113
 Adoni, Areti E799
 Afilalo, Marc 27
 Ahmad, Ayesha 581
 Ahn, Yong 547
 Ahn, Sangmin E725
 Albers, Sheri L. E331
 Alexander, Guillermo M. 581
 Aliaga, Luis E601
 Almonte, Wilson 231
 Almualim, Mohammed 489
 Alsharif, Kais I E627
 Ambite-Quesada, Silvia E591
 Anselmetti, Giovanni Carlo E397, E519
 Appasamy, Malathy E731
 Arai, Young-Chang P E547
 Arakawa, Maki E547
 Asensio-Samper, Juan Marcos 145
 Ashford, Robert L. 9
 Ata, Monica A. E763
 Atallah, Joseph 489
 Atıcı, Nermin 259
 Atluri, Sairam SE97, 321, S49
 Auff, Eduard E287

B

- Banh, Diem Phuc T. E789
 Bansal, Dipika E705
 Batistaki, Chrysanthi 125, E799
 Baumgartner, Richard N. E227
 Bendok, Bernard R. E537
 Benson, Carmela E237
 Benyamin, Ramsin M. 177, S49, SE1, SE25, SE55, SE97, SE151, SE261, 419, E491, E129, E145, S1, E601
 Bernard, Jason E519
 Bernathova, Maria E287
 Bertrand Romero H. E257
 Bertrand, Adriana L. E257
 Berzaczy, Dominik E287
 Besse, Kees E779
 Besson, Marie E553
 Bhansali, Anil E705
 Biondi, David E237
 Birkenmaier, Christof 335, E185
 Birthi, Pravardhan E443
 Blattert, Thomas E519, E749
 Bodner, Gerd E287
 Bohnen, Angela E113
 Bornemnn, Rahel E505
 Boswell, Mark V. E227, S49
 Boune, Vincent E739
 Bramanti, Placido E119
 Brown, Michael N. E315
 Bruel, Brian M. E107

- Bryce, David A. S49
 Buenaventura, Ricardo M. SE97, S49
 Buonocore, Michelangelo E801
 Burger, Nathalie 379
 Burks, Trish A. S49

C

- Cabot, Peter J. E199
 Cabral, Howard 77
 Cai, Guo-Hong 521
 Calabro, Rocco Salvatore E119
 Calhoun, Derek E443
 Callahan, Daniell E793
 Calodney, Aaron K. S49, SE55, SE97, SE151, SE229, Candido, Kenneth D. 497, E769
 Candler, Shawn A. E301
 Caraway, David L. S49, SE25, SE55, SE229, SE261, S1
 Carter, Stephen G. E749
 Cash, Kimberly A. 465, E491, E1, E129, S49
 Cedraschi, Christine E553
 Chabert, Jocelyne 45, E553
 Chai, Thomas E107
 Chaiban, Gassan M. 489
 Chandra, Ronil V. 369, 309
 Chang Eric Y E627
 Chang, Bong-Soon 135, E715
 Chao, Huang 15
 Charles, Jeremy E731
 Chen, Jeffry Q. E537
 Chen, Jing 521
 Chen, Lei 533
 Chen, Ning-Jie E122
 Chen, Liang E411
 Chen, Tao 533
 Chiara, Gabriele E397,
 Cho, Soo Young 41
 Choi Eunjoo E531
 Choi Kyung-Chul 547
 Choi, Jongwoo 479
 Choi, Kwan Woong E247
 Choi, Woo-Jong 213
 Choi, Yi Hwa 155
 Choi, Jeong Il 41
 Choi, Seong Soo 197
 Choi, Hyunseok E95
 Choo, Ho-Sik 513
 Chopra, Pradeep SE125
 Christo, Paul J. S49
 Chung, Nam-Su 513
 Chung, Joanne WY E685
 Chupatanakul, Lalida 497
 Clendenen, Steven R. E301
 Cohen, Steven P. 1, S49, SE55, SE97, SE229
 Colson MS, James S49, SE217, SE125
 Conn, Ann S49
 Cordner, Harold J. S49
 Coubarous, Sareta S49, SE185
 Court, Charles E519
 Courvoisier, Delphine E553
 Cras, MD, Patrick E277

Cui, Xuejun	455
Cummings, Jennifer	489

D

Daali, Phar Youssef	E553, 45
Daenen, Liesbeth	E277
Dahan, Albert	E85
Dann, Tammy L.	E793
Darabad, Raheleh Rahimi	E769
Dardashti, Simon	E627
Datta, Sukdeb	S49, SE55, SE97
Dayer, Pierre	45, E553
De Andres, Jose	145
De Kooning, Margot	E277
De Oliveira Jr, Gildasio S.	E537
DeClerck, Luc S.	E61
Deer, Timothy R.	415, E125, S49, SE1, SE25, SE125, SE185
Deng, Zhong-Liang	E411
Derby, Richard	SE55, 479
Desmeules, Jules A	45, E553
Díaz, Homid Fahandez-Saddi	E591
Diehl, MD, Peter	E185
Diwan, Sudhir A.	S49
Dodge, Heather S.	E25
Dong, Yu-Lin	521
Donnet, Anne	E779
Driver, Larry C.	E107
Duarte, Rui V.	9
Duunch, Stephanie ..	E301, E1, E129, E145, S1, S49 SE25, SE97, E151, SE229, SE261, E349, E365, E379, 419,

E

Edinger, Lara	581
Ehret, Georg B	45
Eichen, Phillip Maximilian	E45
Eisenberg, Elon	65
Ekhator, Nosakhare N.	E25
Elahi, Foad	E793
Eldridge, Jason S.	101
Engels, MD, Yvonne	E779, 379, 569
Engle, Mitchell P.	251
Erdek, Michael	E483
Erwin, Kirsten	581
Etropolski, Mila	E237

F

Fabregat-Cid, Gustavo	145
Facchini, Francis Rocco	E397
Fagan, Daniel	E519
Fagoonee, Sharmila	E121
Falco, Frank J.E.	177, S49, SE25, SE55, SE97, SE229, SE261, E349, E379, 419, E129, E145, S1, SE1, SE125, E365, SE185, SE151
Fauler, Ingrid	265
Feigl, Georg P.D.	391
Fellows, Bert	S49, E1
Fernández-de-las-Peñas, César	E591
Fischer, Mark	E25
Fischer, Benedikt	E671
Flug, Jonathan	441
Forster, Alain	45
Francisco, Gina M.	225, E31

Fransen, Hendrik	E519
Fransen, Patrick	E519
Frauger, Phar Elisabeth	89
Freeman, Eric D.	101
Frey, Diana	E749
Fritschy, Daniel	45
Frombach, Elke	391
Fu, MD, Qin	277
Fukui, Sei	E435

G

Garcia, João Batista Santos	E257
Gaul, Charly	E181
Gebhardt, Rodolfo	E325
Geffert, Stephanie C.	S49, SE185
Georgy, Bassem	E513
Geraciotti, Thomas	E25
Gerdesmeyer, Ludger	E185
Gernigon, Marie	57
Gex-Fabry, Marianne	45
Ghai, Babita	E705
Ghazi, Salim M	E301
Gidron, Yori	E277
Gierthmuehlen, Mortimer	E802, 405
Gill, Jatinder S.	E295
Gilligan, Christopher	E391, 369
Glaser, Scott E.	321
Glynn Laura,	E301
Gofeld, Michael	E725
Goldner, Elliot	E671
Gollwitzer, MD, Hans	E185
Graf, Hans-Jorg	E749
Green, Adam W.	E763
Greenlee, Jeremy	E793
Grider, DO, Jay S.	S49, S1, E443
Grogl-Aringer, Gabriele	593
Grosemans, Sofie	E61
Gudala, Kapil	E705
Gulur, Padma	E103
Guo, Qulian	E615
Gupta, Sanjeeva	S49, S1

H

Ha, OMD, Ki Tae	E95
Haddad, May	65
Hagel, Vincent	E181
Hameed, Haroon	S49, SE55, SE25
Hameed, Mariam	S49, SE125
Han, Shi-Liang	E122
Han, Tae-Hyung	E789
Han, Jong In	E405
Han, Kyung Ream	155
Han, Seung-Hwan	513
Hanford, Ann	441
Hans, Guy	E61
Hansen, Hans C.	E379, S49, SE261, 415
Happak, Wolfgang	E287
Haque, Quazi	E789
Harun, Nusrat	251
Hata, Justin T.	E627
Hauschild, Matthias	E185
Hayek, Salim M.	SE125, SE185

Author Index

- He, Chunli E615
He, Zhenghua E615
Heemstra, Irene 569
Helm II, Standiford ..177, S1, S49, SE1, SE55, SE151, SE261, E145
E635, SE125
Hermans, Linda 291, E61
Herrmann, Peter 593
Hirsch, Ariel E. E391
Hirsch, Joshua A. ..SE229, SE261, 309, 369, 419, E129, E145, S1,
S49, SE1, SE25, SE55, SE151, E349, E391, E635
Hoelzer, Bryan C. 101
Hohn, Hans-Peter E181
Horn, Paul S. E25
Hosle, Manfred E749
Hota, Debasish E705
Hu, Jia-Chen E71
Hua, Susan E199
Huang, Fan E411
Huang, Jing 521
Hurford, William E. E25
Hussain, Arif E483
Hwang, Chang Ju 213
- I**
- ick, Susan J 77
Ickmans, Kelly E61
IJsseldijk, Michiel 379
Ikeuchi, Masahiko E547
Iliaš, Wilfried 593
Issa, Mohammed A. E763
- J**
- Iwashita, Narihito E435
Janata, Jeffrey W. S49
Jang JE E448
Jang, Ji Eun E191
Jansen, Ian E25
Jansen Tom R. E505
Jasper, Gabriele P. 225, E31
Jefferson-Wilson, Lena E25
Jeon, Chang-Hoon 513
Jeon, Sang-Ryong 213
Jian, Wang E419
Jiang Hong 455
Jiang, Weimin E50
Jin, Hyun Seung 557
Jin, Peng E427
Joe, Han Bun 155
Joo, Eun Young 197
Jortani, Saeed A. E227
Joshi, Anand E731
Jouanjus, Emilie 89
Justiz, Rafael S49, SE125
- K**
- Kabir, Koursh E505
Kang, Byung Uk 547
Kang, Joon Won E450
Kang, Kyoung-Tak 135, E715
Karl, Helen W. E315
Kasai, Yuichi 603
Kasperk, Christian E519
- Kaya, Serap 291
Kaye, Alan D. S49
Ke, Zhen-Yong E411
Ke, Ma 15
Keel, John C. E103
Kelekis, Alexios E397
Kendall, Mark C. E537
Kerasnoudis, Antonios E446
Kieselbach, Kristin 265, 405
Kim Jin-Sung 547
Kim, DH E448
Kim, Do Hyeong 117
Kim, Dong-Whan 135
Kim, Eun Mi 117
Kim, Hak-Sun 165
Kim, Ho-Joong 135, E715
Kim, Robert B E627
Kim, Seok Woo 165
Kim, Shin Hyung E247
Kim, Sung Hoon 197
Kim, Sung-Hoon 213
Kim, Tae-Hwan 165, E217
Kim, Won Ho 557
Kim, Chong H. E763
Kim, Chan 155
Kim, Chung Su 557
Kim, Hyeun Sun 359
Kim, Seung Cheol 345
Kim, Woong Mo 41
Kim, Yun Hwan 345
Kim, Dong Hwee E191
Kim, Dong Yeon E405
Kloth, David 415
Knezevic, Nebojsa Nick 497, E769
Ko Su-Kyoung E217
Koh, Won UK 197, 213
Koman Gershom E120
Komp, Martin 335
Konig, Volker E45
Koo, O Sung Tae E95
Kosharsky, Boleslav 231
Kostopanagiotou, Georgia 125, E799
Kosuwon, Weerachai 603
Kou, Zhen-Zhen E71
Koyyalagunta, Dhanalakshmi 251
Krashin, Daniel L E725
Krumova, Elena K. 391
Kuo, Hann-Chorng 109, E15
- L**
- Labak, Samantha E601
Labib, Mourad 9
Langman, Loralie E227
Lanteri-Minet, Michel E779
Lapeyre-Mestre, Maryse E739, 89
Latchaw, Richard E. E331
Lau, Mary E. E103
Lee, Ju-Yeon E217
Lee, Jae Hoon 117
Lee, Byung Ho 165, E217
Lee, Cheng-Ling 109
Lee, Choon-Ki 135, E715

Lee, Dong-Bong	135, E715
Lee, Doo-Hyung	513
Lee, Gun-Woo	135
Lee, Hwan-Mo	165, E217
Lee, Jae 197	
Lee, Jin Young	557
Lee, Marion	S49
Lee, Sang Eun	155
Lee, Seong Heon	41
Lee, Seung-Hwan	165, E217
Lee, Pyung-Bok	E531
Lee, Chul Joong	557
Lee, Chung	213
Lee, Hyung Gon	41
Lee, Sang Chul	213
Lee, Sang Ho	E37
Lee, Sang-Chul	353
Lee, Sang-Ho	353, 547
Lee, Sangmin M.	557
Lee, Chang-Hyung	E95
Lee, Jeong-Eun	479
Leem, Jeong Gil	197
Leem, Jeong Gil	213
Leftheriotis, Georges	57
Lesch, Otto	593
Leu, Hansjörg F.	335
Li Fei	E563
Li Yong-Yong	E563
Li, Chun-Yu	E71
Li, Hui	E71
Li, Min	E427
Li, Xiaochun	455
Li, Qing-Tao	E122
Li, Lin	77
Li, Xiaofeng	455
Li, Yunqing	533
Li, Yun-Qing	E71, 521
Liao, Yong-Hui	E71
Lieba-Samal, Doris	E287
Likar, Rudolf	593
Lin, Jun	447
Liu, Cheng	E47
Liu, Xun-Wei	E427
Liu, Jintao	455
Liu, Tao	533
Liu, Yong	E563
Liu, Xian-Guo	E563
Loher, Alfons	E749
Loyd, Gary E.	E227
Lusted, Anna	E671

M

Ma, Li-Qing	E577
Macron, Donald	E731
Maier, Prof, Christoph	391
Malla, Yogesh	SE261, 465
Mallaret, Michel	89
Manca, Antonio	E397
Manchikanti, Kavita N.	S49
Manchikanti, Laxmaiah...E1, E129, E145, S1, S49 SE25, SE97, E151, SE229, SE261, E349, E365, E379, 419, 465, E491, SE55, SE185 E635, SE1	

Marchand, Johann	57
Martinez-Martín Javier	E591
Martínez-Perez, Almudena	E591
Massey, Scott T.	E769
Matchett, Gerald	E311
Matthey, Alain	E553
McLaughlin, Coleen	E731
McManus, Carla D.	S49, E491
Meeus, Mira	E61, 291
Mei, Xiao-Peng	533
Melnik, Irina	479
Micallef, Joëlle	89
Mithal, Divakar S.	E113
Montagne, Agnes	E553
Montemurro, Filippo	E397
Moon, Seong-Hwan	165, E217
Moorkens, Greta	E61
Moritz, Tomas	E287
Morlion, Bart	27
Mosges, Ralph	E45
Moskovitz, Bruce	E237
Moujan, Pablo M.	E789
Moursli, Fouzia	45
Muderis, Munjed Al	E185
Mueller, Oliver M.	E181

N

Nader, Antoun	E537
Nahm, Francis Sahngun	E531
Nakipoglu-Yüzer, Güldal F	259
Namazi, Hamid	E631
Neuman, Stephanie A.	101
Nicolas, Volkmar	391
Niesters, Marieke	E85
Nijs, Jo	E61, E277
Ning, Li	E577
Nishida, Kikuyo	E547
Nishihara, Makota	E547
Nitta, Kazuhito	E435
Nordmann, Sandra	89
Nosaka Shuichi	E435
Nouri, Kent H.	E107

O

Oderkerk, Jorinde	E61
Onyewu, Obi	S49, SE151, SE185
Oo, Myint	603
Ortega-Santiago, Ricar	E591
Ortiz, Orlando	441
Osborne, Michael D	E301
Otten, Lucia A.	E505
Ouedraogo, Nafi	57
Overdyk, Frank	E85
Ozgirgin, Nese	

P

Paholpak, Permsak	603
Palmaro, Aurore	E739
Palmer, Scott C	E301
Pampati Vidyasagar E1, E349, E365, E379, 465, E491, E129	
Pang, Rui-Ping	E563
Papadopoulos, Dimitrios	125

Author Index

- Pappagallo, Marco 231
Parejam, Juan A. E591
Park BK E448
Park, Jae Hong 155
Park, Jin-Oh 165, E217
Park, Seung Yong 197
Park, Anne E113
Park, Jae-Young E715
Park, Moon-Soo E217
Park, Chan Hong 353
Park, Chan-Hong E37
Park, Hahck Soo E405, 345
Park, Jeong Yoon 359
Park, MD, Byung Kyu E191
Park, Sangun E217
Parr, Allan T. S49, SE261
Patel, Vikram S49, SE185
Pauly, Vanessa 89
Pellicano, Rinal E121
Pennekamp, Peter H. E505
Pennekamp, Werner 391
Perotti, Luciano 145
Perret, Danielle M. E627
Pflugmacher, Robert E505
Piano, Virginie E779
Picquet, Jean M. 57
Piguet, Valerie E553, 45
Plastaras, Chris E731
Pokorny, MSc, Rolf E749
Pradel, Vincent 89
Prosch, Helmut E287
Provenzano, David A. E125
Pud, Dorit 65
Pukenas, Bryan E731

Q

- Qian, Xiang 455
Qu, Ji-Ning E267
Qu, Juan E71
Qu, Wenchun 101

R

- Racz, Gabor B. S49, S1
Ramasubba, Chitra 1
Ramey-Hartung, Bronwyn E227
Rana, Maunak V. 497
Rana, Humair E311
Raphael, Jon H. 9
Rauschkolb, MD, Christine E237
Rebsamen, Michela 45
Regge, Daniele E397
Rehm, Jürgen E671
Reichl Lukas 593
Rezai, Ali 415
Rodgers, Drew E. E763
Roe, Hee Jin 557
Roerecke, Michael E671
Rohof, Olav E435
Rosenow, Joshua M. E537, E113
Rossier, Michel F. 45
Roussel, Nathalie E277, 291
Roussin, Anne E739

- Rudroju, Neelima E705
Ruetten, Sebastian 335
Russo, Filippo E397
Ryu Kyeong-Sik 547
Sabharwal, Tarun E519

S

- Sakakibara, Toshihiko 603
Santos, Alcione M. E257
Saranteas, Theodosios E799
Sauer, Ruben 497, E769
Saxena, Akriti P. E391
Sayeed, Yusuf E731
Schalkwijk, Annelies 569
Schils, Frédéric E519
Schlaff, Golda 593
Schlamann, Marc E181
Schultz, David M. SE261, 415
Schupfner, Rupert E519
Schwartzman, Robert J. 581
Schwarzer, Andreas 391
Sehgal, Nalini S49, SE217
Setoguchi, MD, DrPH Soko 77
Shah, Rinoo V. 321, E51
Shaparin, Naum 231
Sharma, MD, FRCA, FFFMRCA Manohar S49
Shen, Kai-Feng E563
Shim, BA Hyun Bo E95
Shin, Jae Young 197
Shin, Jae II E450
Shin, Byung Seop 557
Shin, Jin-Woo 197, 213
Shin, MD, Yong II E95
Siddiqi, Mashhood Ali E519
Sim, Woo Seog 557
Simopoulos, Thomas T. E295, S49
Singh, Vijay ..49, SE1, SE25, SE151, SE229, SE261, E365, E145, S1, SE55 E635
Sircar, Ronen 405
Skala, Katrin 593
Smith, Howard S. 231, S49 SE185, SE227, SE261, S1, 521
Smith, Timothy R. E113
Smith, Terry E85
Snook, Lee T. S49, SE55, S1
Song, Ho-kyung E632
Southall, Jane L. 9
Staats, Peter S. SE229
Stauble, M. Elaine E227
Steegers, Monique E779
Stoevelaar, Herman E519
Struyf, Filip E61
Stuwe Brit E505
Sudarshan, Gururau 321
Suh, Bo-Gun 135, E715
Suh, Jeong Hun 213, 197
Suk, Kyung-Soo E217
Sun, Fu E267
Sun, Gang E427
Sure, Ulrich E181

Suzan, Erica	65
Swicegood, John R.SE261, S49	
Sykes, MD Kenneth T.	399
Talakkokkula, Shiva Teja	E705
Tang, Jun	E71
Tang, Dezhi	455
teBoveldt, Nienke	379
Telfeian, Albert E.	225, E31
Tharian, Antony	497
Thirion, Xavier	89
Thompson, Simon	415
Tilley, Dana M.	E601
Timmerman, Hans	569
Timpone, Vincent M.	369
Toepfer, Andreas	E185
Tomie, Hisashi	E435
Treister, Roi	65
Trescot, Andrea M.	E315
Tucker, William W.	E227
Tutton, Sean	E397

U

Ushida, Takahiro	E547
------------------------	------

V

Vallejo, Ricardo	S49, E601
Van Weel, MD, Chris	E779
Vanderby, Brooke	E537
Varadi, Gyula	E749
Vasic, Vladimir	497
Veihelmann, Andreas	E185
Verhagen, Constans	569
Verhagen, MD, Stans	E779
Vernooij-Dassen, Myrra	379
Viera, Erica B.	E257
Villaneuva-Perez, Vicent Luis	145
Vinh, Baominh P.	251
Vissers, Kris	379, 569, E779

W

Wagenpfeil, Stefan	E185
Wagner, MD, Klaus	E185
Wallner, Christina	593
Walter, Henriette	593
Wan, Shuang-Lin	E122
Wang, Heng	E50
Wang, Li-jun	E427
Wang, Xing-Li	277
Wang, Zhuo	603
Wang, Wei	533
Wang, Wen	521, 533
Wang, Yang	E411
Wang, Yongjun	455
Wang, MD, Ying-Wei	E577
Wang, Jun	E563
Wang, Zhi-Ru	E577
Wang, Kun	533
Ward, Stephen P.	S49, S1
Wargo, Bradley W.	S49, SE261, 465

Wegener, Bernd	335
Wei, Xu-Hong	E563
Willems, PT, Tine	291
Williams, Joe	E601
Wirtz, Dieter C.	E505
Wolfer, Lee R.SE55	
Wolff, Adriana	45
Wolter, Tilman	E802, 265, 405
Wong, Thomas KS	E685
Woo, Jae Hee	E405, 345
Wrede, Karsten	E181
Wu, Huang-Hui	521
Wu, Kenneth	E325
Wu, Sheng-Xi	E71, 521
Wu, Ying	E563

X

Xeuhua, Huang	15
Xiang, Hong-bing	E47
Xiang, Jim	E237
Xiao, Muzhang	E615
Xiaoming, Liu	15

Y

Yamamoto, Yoshihiro	E547
Yang, Li-yu	277
Yang, Fei	E122
Yang, Huilin	447, E50
Yao, Min	455
Ye, Hanna	E95
Ye, Da-wei	E47
Yeom, Jin S.	135, E715
Yi, In Kyong	155
Yi, Xiaobin	399
Yi, Jin	15
Yinghui, Fan	15
Yingwei, Wang	15
Yoo, Albert J.	E391, 309
Yoon Duck Mi	117, E247
Yoon Kyung Bong..	117, E247
Yoon, Myung Ha	41
Yu, Penfei	455

Z

Zeng, Yingchun	E685
Zhang, Lei	447
Zhang, Fu-Xing	533
Zhang, MD, Yin-Gang	E267
Zhao, Yan	521
Zhijun, Cheng	15
Zhou, Long	277
Zhou, Li-Jun	E563
Zhu, Jie	S49, SE185
Zhu, Ling	533
Zhu, MD, Wen-Zhen	E47
Zhu, Zhen	E749
Zou, MD, Wangyuan	E615

2013 Index by Key Words

- 3-D imaging.....E301
5-HT noradrenaline re-uptake inhibitor.....E553

A

- accountable interventional pain management.....E635
acetaminophen.....E61
acute
 low back pain.....E237
 pain.....E739
addiction593
adenosine533
adhesiolysis.....E37, 353
adults77
adverse effects.....E247
after sensation581
agreement569
allodynia533, 581
ambulatory surgery centers (ASCs)419
amitriptyline.....E705
analgesia65, 369, E615
analgesic(s)27, E247, 593
 drug.....E739
anatomical study.....E181
anesthetics.....E247
angulus costae.....15
animal model.....E267
ankle
 pain.....603
 brachial index.....513
anterior cingulate cortexE577
anterolateral approach.....E427
antidepressants.....E685
 and anticonvulsants.....E547
antioxidant521
anxiety.....E25, 265, E257
aortic513
approach321
appropriateness criteria.....E519
arterial pressure57
artery of Adamkiewicz321
arthritic
 knee.....E95
 pain.....E95
 treatment.....E95
assessmentE287
atypical facial painE537
axial or discogenic pain.....E491

B

- back pain.....369, E483, E505
baclofen101, E627
 withdrawal.....E113
balloon kyphoplastyE513, E519
bilateral
 approach.....447
 kyphoplasty.....277
biophysiological assessment.....E95
bisphosphonates.....231

- bladder pain syndrome109
blood glucose557
bone mineral density165
botulinum toxinE15, 109
brachial
 plexopathyE311
 plexus.....E311
brain ischemia.....117
Brief Pain Inventory379
buprenorphine.....E739

C

- C2E427
calcification.....513
cancer.....1, E247, E311, 309, 379
 observational study.....569
 pain.....E107, E547, E779
 managementE325
 palliationE325
 -induced bone pain533
carpal tunnel syndrome.....E191, E591
case
 report.....E113
 series.....E85
 vignette.....E779
catechol-O-methyltransferase geneE591
caudal epiduralE349
 injectionsE129
cement leakageE513
Centers for Medicare and Medicaid Services (CMS)E145
central sensitizationE277, 291
cerebrospinal fluid (CSF)E25
 leakE113, 399
cerebrovascular circulation117
cervical335
 disc herniation465
 epidural.....E349, 465
 block155
 blood patch.....399
 interlaminar injection155
 transforaminalE349
vertebra353
vertebralE419
Cesarean section.....E227
chemical neurolysisE325
chronic
 cluster headacheE181
 constriction injuryE577
 fatigue syndromeE61
 low back pain.....E129, E435
 neck pain465
 pain ..27, 41, E1, 145, E61, E85, 197, 231, 479, E553, E763, 581, 603
pancreatitis.....521
pelvic pain291, E365
spinal painE391
whiplash associated disordersE277
cine mode.....E627

claudication	57, 513
clinical	
assessment	569
efficacy	265
comorbidity	E671
complex regional pain syndrome (CRPS)	391, 581
syndrome	E315, 391
complication(s)	391, 251
compression	E513
fractures	E483
computed tomography	369
conditioned pain modulation	E61
contractor medical director (CMD)	E145
contrast medium	155
controlled	
comparative local anesthetic blocks	E491
substances	E1
trial	E615, 455
controversy of vertebroplasty	E483
cost	
effectiveness analysis	E129
utility analysis	E129
cross	
-sectional area	E191
-talk	489
cryoneuroablation	E315
cytochrome 2D6	45
cytokines	E601

D

degenerative spine	E217
denervation	1
Department of Health and Human Services (HHS)	E145
dependence	E671
depression	265
descending noxious inhibitory controls	E553
developing countries	603
dexmedetomidine	231
dextromethorphan	45
diabetes	557
diabetic	
neuropathy	E705
peripheral neuropathy	27
diagnosis	57, 569
diagnostic	
criteria	9
nerve blocks	E315
test	569
disability	265
disc	
degeneration	E267
herniation	65, 335
discogenic pain	E435
distribution range	155
doctor shopping	89
dorsal	
column	E763
root ganglion	E405
drug therapy	E685
dual-reuptake	E553
duloxetine	E705
dynamic allodynia	581

E

echogenic needle	E725
education	E779
effective radiation dose	E731
effectiveness	E37
electromagnetic	
stimulation	E601
electroneuromodulation	E601
endoscopic	335
endoscopic discectomy	E31, 225
endoscopy	335
entrapment neuropathy	E287
epidemiology	603
epidural	185
blood patch	E25
injection(s)	155, 369, E349, E635
spread	155
steroid injection(s)	399, 557, 197
steroids	465
epidurogram	155
ethanol	391
everyday functionality	497
evidence	
development with coverage	E145
-based-medicine	E779, 185, E145, E391
exercise testing	57
exome sequencing	E267

F

facet	
joint	479
injections	E365
interventions	E635
rhizotomy	479
fatalities	E1
female gender	E227
fibromyalgia	E61, E553
impact questionnaires	E553
flexible dosing	E237
fluoroscopy	155, E301, 369, E731
Fogarty catheter	213
foraminal stenosis	E37
fractures	447, E483, E513, E519
fragmentectomy	359
free testosterone	9

G

gabapentin	E705
gastrointestinal tolerability	E237
gender	E257
difference	E715
gene expression	E601
General Practice Research Database (GPRD)	77
genetic polymorphisms	E227
genitofemoral nerve	391
geriatric	225
greater occipital nerve	E181
guideline(s)	E779, E145
gunshot wound	E103
gynecologic cancer	345

Key Word Index

H

- headache E25, E769, 603
health care delivery system 419
heart rate variability E277
hemangiomas E419
HMGB1 E615
hospital outpatient departments (HOPDs) 419
Hunner's ulcer 109
hydrocodone E227
hydromorphone 65, E227
hyperalgesia E247, 291, 581
hypertonic saline 197
hypogonadism 9

I

- ibuprofen E747
IC/PBS E15
ICAM-1 E199
ilioinguinal E789
immune cells E199
immunoliposomes E199
implantable
 cardioverter defibrillator 489
 drug delivery systems 9
 pain therapies 251
infection 251
inflammation E199
infrapatellar saphenous nerve E315
inhibitor E553
injection(s) E191, E301, E247, 465, E491
injury E191
innervation 1
insulin
 receptor E71
 substance 1 E71
interaction 489
interference with daily activities 379
interlaminar 547
 approach 359
 injection 497
interleukin-10 E615
interobserver reliability 569
interstitial cystitis 109
interventional
 pain management E145, E349, E365, E391
 techniques E145, E365, E391
intracranial hypotension 399
 headache 399
intractable abdominal pain E325
intradiscal procedures E435
intrathecal E615
 analgesia E107
 baclofen E113
 pump complications E113
 catheter E627
 drug delivery E107, 251
 system 101
 pump E627
intravenous infusions in chronic pain management 231
intravertebral pressure E411
intravesical treatment E15, 109

J

- JAK2 E71

K

- ketamine 41, 231
Kiva E397, E505
knee
 osteoarthritis E747
 pain E315
kyphoplasty 309, E391, E411, 441, 447, E483, E505

L

- L5-S1 disc herniation 547
lateral
 canal 197
 femoral cutaneous nerve 391
 parasagittal interlaminar approach 497
lead migration E763
least developed countries 603
lentiviral E615
lidocaine 231
local E247
 anesthetic (s) E491, 197, 465
 coverage determinations (LCDs) E145
long-term
 effect of pressure E95
 retention E739
loperamide E199
low back pain 27, 185, E391, 479, 497, E685, 557, 603
lumbar E37, 335
 disc herniation E129, E491
 discogenic pain E129
 epidural E349
 injection 321
 steroid injection 497
foraminal stenosis 213
interlaminar epidural E491
post surgery syndrome E129
puncture E25
radiculopathy 197
spinal stenosis 135, 165, E129, 513, E715
spine E103
sympathetic ganglion block 345
transforaminal 321, E349
lymphedema 345
lysis 185

M

- magnesium L-threonate E563
magnetic resonance imaging E295
major gene strategy E267
malignant pain E107
management E217
mechanical allodynia E601
mechano-allodynia 581
medial branch block(s)
 neurotomy 479
median nerve E191
Medicare 419, E635
 Evidence Development & Coverage Advisory Committee E635
 Payment Advisory Commission (MedPAC) 419

meralgia paresthetica.....	E287
meta-analyses.....	E671, 277, 455, E685, 521
metastases.....	E397
methadone.....	E739
midline interlaminar approach.....	497
migraine.....	E769
milnacipran.....	E553
minimally invasive.....	225, E31
mirtazapin.....	E547
morphine.....	101
mouse.....	E71
multiple sclerosis.....	E627

N

national coverage determinations (NCDs).....	E145
near-infrared.....	117
neck.....	353
nerve	
block.....	117
injury.....	E315
nested case-control.....	77
network meta-analysis.....	E705
neuralgia	E789, E793
claudication.....	213
neurolysis.....	391
neuromodulation.....	251, E793
neuronal.....	E577
neuropathic pain...65, 259, E237, 335, 405, E563, E577, E779, 569, 379	
neurostimulation.....	E763
NMDA.....	E563
nociceptive	
pain.....	E247
pathway.....	E601
noncancer pain.....	E1, 77
nonmedical use.....	E671
nonparticulate.....	321
non-surgical management, E519.....	
NSAIDs	E685

O

occipital nerve stimulation.....	E181
opioid.....	27, E739
abuse	89
concentrations.....	E227
maintenance treatment	E739, 89
Mu 1 receptor	E227
opioid-induced	
hyperalgesia (OIH)	41,65
respiratory depression.....	E85
opioids.....	41, 77, E1, E85, E199, E685, E247,593
for mild to moderate pain	89
for moderately severe to severe pain.....	89
OPRM1	E227
orthostatic headache	399
oscillation	E577
osteoarthritis pain	27
osteolytic metastasis	E427
osteoporosis	309, 455, E505, E519
osteoporotic	447
vertebral compression fracture(s)	441, 277

Oswestry Disability Index.....	135, E715
outcome	185
oximetry	117
oxycodone	E237
CR.....	27
oxygen.....	117

P

pacemaker.....	489
pain.....E25, 101, 125, 165, E85, 251, 259, E199, E217, E257, E311, 379, E427, 497, E671, 521, 569, 593, E705	
behavior assessment.....	E95
inhibition.....	291
management.....	379, E391
Index	379
measurement	E247
medicine	E627
modulation.....	E277, 291
palliation	E397
perception	E247
physician	E779
procedures	251
processing	291
pump	101, E107
sensitivity.....	135, E715
questionnaire.....	135
thresholds	E591
painful	
bone metastases.....	E547
diabetic neuropathy.....	E71
pancreatic cancer.....	125
paralysis.....	321
paresthesia	265, E763
particulate	321
pathophysiology	57
Patient Global Impression of Change	E553
payment policies	E635
PELD	547
pelvic pain	291
percutaneous	
adhesiolysis	E531
endoscopic lumbar discectomy	359
vertebroplasty.....	E419
perineal pain	145
perioperative complications.....	E107
arterial disease.....	57
obstructive disease	513
nerve entrapment	E315
stimulator	E789
persistent pain	E1
pharmacodependence	E739
pharmacoepidemiology.....	E739
phenol neurolysis	E325
phentolamine	231
physician office practices.....	419
piriformis	E301
placebo.....	185
PMMA leakage	E411
polymorphism pressure	E591
population kinetics.....	45
postdural headache	399

- puncture headache 101, E25
- post lumbar surgery syndrome E531
- postherpetic neuralgia 15, E769
- postoperative pain E227, E315, 447
- post-traumatic stress disorder (PTSD) E25, E277
- postural change E763
- pre-emptive E217
- analgesia 45
- pregabalin E547, E705
- prescription(s) E1
- drug abuse 89 E1
- database 89
- opioid analgesics 89
- opioids E671
- pressure
- effect E95
- paresthesia 497
- prevalence 57, 379, 603
- prevention E671
- PRF E601
- prostatic acid phosphatase 533
- pseudomeningocele E113
- psychological factors 265
- pudendal nerve entrapment E793
- pulsed radiofrequency 15, E311, E435, E601
- pupillometry E257

Q

- quality of life E247, 497
- quality-adjusted life years E129
- quantitative E553
- questionnaire 593
- quinidine 45

R

- race E25
- radicular
- artery 321
- leg pain E237
- pain E103
- radiculopathy 65, 185, E237, E405
- radiofrequency 1
- neurotomy E365, 479
- targeted vertebral augmentation E513
- thermocoagulation 125
- RAND/UCLA Appropriateness Method E519
- randomized 455, E615
- clinical trials E685
- controlled trial (RCT) 185, 277
- rat E601, 533
- receptor E563
- recurrence 359
- regional blood flow 117
- regulations E1
- retained bullet E103
- retrograde neuromodulation 145
- review 335
- rheumatoid arthritis E61
- risk
- Roland-Morris Disability Questionnaire E435
- rs1799971 E227

S

- sacral root stimulation 145
- sacroiliac joint 1
- arthritis E391
- injections E391, E635
- safe triangle 321
- safety 77, 369
- saphenous neuralgia E315
- screening 593
- SCS 405
- selective nerve root block 321
- self-efficacy 265
- self-rating 593
- sensitivity E591
- sensitization E61, 291
- sensory testing E553
- SEP 405
- serotonin syndrome 41
- serum E227
- Short Form-36 135, E715
- short-term memory E563
- shoulder pain 603
- somatosensory evoked potentials 405
- spared nerve injury E601
- spasticity E627
- spectroscopy 117
- phenopalatine ganglion block E769
- spinal
- canal E103
- cord
- injury 259
- stimulation 145, E103, 251, 265, 405, E763, E793
- devices E295
- stimulator 489
- dorsal horn 533
- fracture 309
- fractures/therapy E391
- headache 101, 399
- injection 369, E725
- injury E103
- metastasis E405
- nociceptive flexion reflex E553
- pain E349
- stenosis 197, 353, E531
- spine E397, E731
- splanchnic nerves 125
- spontaneous activity E577
- Sprague-Dawley E601
- STAT3 E71
- static allodynia 581
- stellate ganglion 117
- steroid(s) E191, 321, E491
- subcutaneous E247
- substance
- abuse E1
- use treatment E671
- surgery E217
- surgical site infection 251
- swine model 489
- sympathectomy 391
- sympathetic E277

sympathetically maintained pain syndrome	391
symptomatic.....	E419
systematic review.....	277, 291, 455, E671, E685
T	
tapentadol.....	E237
tapentadol ER	27
targeted drug delivery.....	E199
temporal summation.....	E61
TENS.....	405
TESSYS	E31
thermal allodynia	581
thoracic	15
tic douloureux.....	E537
tobacco	E25
total	
body pain.....	581
serum testosterone.....	9
toxicity.....	E85
tramadol.....	41
transcutaneous	
electrical nerve stimulation	405
oxygen pressure.....	57
transdermal treatment	E747
transforaminal	E31, 197, 225, 547
balloon treatment.....	213
transitional anatomy	1
transversus abdominis plane block	E325
trauma.....	E789
treatment	E779
choice	E519
outcome.....	E391
trigeminal	
nerve.....	E537
neuralgia.....	E537, E769
neuropathy.....	E769
tumor	E311
tumor necrosis factor- α	E563
Tuohy needle	E25
type 2 diabetes	77

U

ulnar artery	E191
ultrasonography.....	E191
Ultrasound.....	E287, E301, E725
ultrasound-guided	E325, E537
unilateral	
approach.....	447
kyphoplasty	277
radicular	497
upper extremity pain	465
urine drug testing	E1
urogynecological pain	291

V

VALE-ibuprofen.....	E747
valproate	E705
valproic acid.....	E705
vascular disease	57
venlafaxine	E705
vertebral	E483
augmentation.....	441, E505
procedures.....	E483
cancer	E483
compression	E519
fracture	455, E505
pain.....	E483
vertebroplasty ...	309, E397, E405, E411, E427, 441, 455, E483, E483, E519
vertebroplasty/methods.....	E391
visual analog pain scale.....	135, E715, E747
vitamin D	165
Von Frey	E601

W

withdrawal threshold	E601
WOMAC score	E747
Z	
zygapophyseal joint	479