

# Meeting Abstracts and ePosters from the 15<sup>th</sup> Annual Pain Medicine Meeting held November 17-19, 2016, in San Diego, CA

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## Medically Challenging Cases

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### **Intrathecal Management for Complex Regional Pain Syndrome with Morphine and Bupivacaine**

Jonathan Hagedorn, George Atallah  
*Baylor College of Medicine, Houston, TX*

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### **Intrathecal Drug Delivery for Treatment of Chronic Pain due to Diffuse Idiopathic Skeletal Hyperostosis Syndrome**

Ram Jagannathan, Adam Young  
*Rush University Medical Center, Chicago, IL*

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### **Sympathetically Mediated Pain after Injury to the Stellate Ganglion**

Gunar Subieta Benito, Michael Kolczynsky  
*John H. Stroger Hospital of Cook County, Chicago, IL*

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### **A Rare Case of Image Negative Thoracic Back Pain with Neuropathic Features Concerning for Occult Malignancy**

Anish Mirchandani, George Christolias  
*New York-Presbyterian Hospital of Columbia and Cornell, New York, NY*

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### **Ultrasound-Guided Interspinous Ligament Steroid Injection for Symptomatic Interspinous Ligament Edema in Two Young Athletes with Back Pain**

Anish Mirchandani, Peter Moley  
*New York-Presbyterian Hospital of Columbia and Cornell, New York, NY*

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### **Pulsed Radiofrequency Treatment for Refractory Trigeminal Neuralgia**

Kai-Ling Hsu, Trusharth Patel  
*Emory University School of Medicine, Atlanta, GA*

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### **Spontaneous Spinal Epidural Hematoma: A Cautionary Tale**

Virginia Hardie, Michael Lankhorst, Lance Doeden  
*UNMC, Omaha, NE*

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**Shortness of Breath with High-Frequency SCS in a Patient with Mitochondrial Myopathy**

Marisa Terry, Kenneth Halter, Jeffrey Chen  
*University of California, San Diego, CA*

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**Intractable Ilioinguinal Neuralgia Successfully Treated with Interlaminar Epidural Steroid Injection**

John Scott Adams, Teekam Ochani, Marjorie Robinson  
*University of Louisville, Dept. of Physical Medicine & Rehabilitation, Louisville, KY*

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**Polymyalgia Rheumatica Accompanying Frozen Shoulder and Enterocolitis**

Yoojung Park

**NO INSTITUTION OR CITY PROVIDED**

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**Pulsed Radiofrequency Ablation of Greater Occipital, Lesser Occipital and Supraorbital Nerves in Post-traumatic Cervicogenic Headache**

Matthew Chung, Enrique Galang, Emil Gaitour  
*University of South Florida, Tampa, FL*

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**Thoracic Epidural for T4-S1 Spinal Fusion for Post-OP Pain Control in An Adult Patient**

Richard Webb, Kenneth Oswalt  
*University of Mississippi Medical Center, Madison, MS*

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**Fluoroscopic Caudal Epidural For Anterior Spinal Surgery**

Richard Webb, Lakshmi Kurnutala  
*University of Mississippi Medical Center, Jackson, MS*

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**Kyphoplasty for the Treatment of an Atypical Osteoporotic Vertebral Compression Fracture of the Lumbar Spine: A Case Report**

Rishi Agarwal, Galaxy Li, Sanjeev Kumar  
*University of Florida, Gainesville, FL*

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**Use of Outpatient Lidocaine Intravenous Infusion for Pain Control in a Patient with Refractory Chronic Pelvic Pain**

Jazelle Mealing, Charles Argoff, Ravneet Bhullar  
*Albany Medical Center, Albany, NY*

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**Case Study: Successful Diagnosis and Treatment of Gluteal Pain From Obturator Internus Tendinitis and Bursitis With Ultrasound Guided Injection**

Leia Rispoli, Boqing Chen, Todd P. Stitik  
*New York Presbyterian - Columbia and Cornell, New York, NY*

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**Myofibrosis Causing Myalgias and Muscle Cramps in Graft Versus Host Disease Diagnosed via Ultrasound**

Simon Willis, Michele Anderson, Katherine Alter  
*MedStar Georgetown University Hospital/National Rehabilitation Hospital, Washington, DC*

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**Spinal Cord Stimulator Therapy for Pain Secondary to Traumatic L1 Vertebral Body Fracture**

Chris Netzel

**NO INSTITUTION OR LOCATION PROVIDED**

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**Successful Spinal Cord Stimulator Application for Lumbar Back Pain Related to Diabetic Neuropathy**

Chris Netzel

**NO INSTITUTION OR LOCATION PROVIDED**

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**Serratus Anterior Plane Block for Chronic Post-Thoracotomy Pain**

Ramon Go, Amitabh Gulati, Vinay Puttanniah  
*New York Presbyterian Weill Cornell Medical Center, New York, NY*

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**Anterior Spinal Artery Syndrome Following Spinal Anesthesia for Elective Inguinal Hernia Repair**

Youngeun Cho, Manisha Trivedi  
*University of Pittsburgh Medical Center, Pittsburgh, PA*

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**Improving Pain Management of Sickle Cell Disease**

Tara-lin Hollins, Ellen Rosenquist, Deepak Agarwal  
*Cleveland Clinic Foundation, Cleveland, OH*

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**Intraoperative Use of Ketamine for a LeFort Osteotomy for a Patient Receiving Ketamine Infusions of Chronic Pain and Depression**

Raj Parekh, Sudha Ved

*Georgetown University Hospital, Washington, DC*

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**"Full Body" Complex Regional Pain Syndrome - A Complex Problem**

Elena Averbakh, Florin Orza

*University of Minnesota, Minneapolis, MN*

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**High Spinal Block after Cervical Medial Branch Block**

Elena Averbakh, Florin Orza

*University of Minnesota, Minneapolis, MN*

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**Complete Resolution of Chronic Low Back Pain after Spinal Cord Stimulator Trial**

Raj Parekh, Netsere Tesfayohannes

*Georgetown University Hospital, Washington, DC*

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**Pseudo-Subarachnoid Hemorrhage After Inadvertent Dural Puncture During Cervical Epidural Steroid Injection**

Hai Nguyen, Joel Cavazos, David Nguyen, Christopher Burnett, Rene Przkora

*University of Kansas School of Medicine, Wichita, KS*

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**Spontaneous Epidural Abscess (SEA): A Diagnostic Challenge**

Junaid Kamal, Santhra Sebastian

*MED VA Medical Center/Baylor College Of Medicine, Houston, TX*

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**Meperidine Only Spinal for Cesarean Section in a Parturient with Local Anesthetic Allergy**

Jennifer Thai

*University of Chicago, Chicago, IL*

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**Ventricular Fibrillation in Prolonged QT Interval Secondary to Methadone**

Nevinson Sam, Jason Nakken, Walter Lee, Erik Hustak, Avinash Beeram

*University of Texas Medical Branch Galveston, Houston, TX*

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**Pulsed Radiofrequency for Treating Sural Neuralgia**

Alaa Abd-Elsayed

*University of Wisconsin-Madison, Madison, WI*

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**A Challenging Case of Post-Operative Pain Management in a Patient with Tenuous Respiratory Function**

Joseph Schwartz, Jay Berger  
*Montefiore Medical Center, Bronx, NY*

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**A Unique Case of Secondary Complex Regional Pain Syndrome during Acute Herpes Zoster Infection with Dramatic Response to Duloxetine**

Sagar Chokshi, Stephanie Jones  
*University of Texas Southwestern Medical Center, Dallas, TX*

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**Celiac Plexus Block as a Diagnostic and Therapeutic Treatment Option for Median Arcuate Ligament Syndrome: A Case Report**

Nathan Lamborn, Ajay Vellore, Tam Nguyen, Rachael Rzasz Lynn  
*University of Colorado School of Medicine, Denver, CO*

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**Successful Splanchnic Nerve Block after Failed Endoscopic Ultrasound-Guided Celiac Plexus Block: A Case Series**

Gabriel Smith  
*Mayo Clinic, Rochester, MN*

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**Intravenous Lidocaine Therapy for Trigeminal Neuralgia and Facial Pain in the Outpatient Setting**

Anis Dizdarevic, Laura Lombardi-Karl  
*Columbia University, New York, NY*

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**Continuous Radiofrequency in the Treatment of Traumatic Sural Neuralgia**

Andrew Dec, Ramsey Saad  
*Henry Ford Health System, Detroit, MI*

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**Difficult Epidural Catheter Advancement Secondary to Deformed Tuohy Needle**

Andrew Koogler, Richard Bryant  
*The Ohio State University Wexner Medical Center, Columbus, Ohio*

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**Superior Hypogastric Plexus Block as an Adjunctive Treatment for Confirmed Endometriosis in a Young Female with Severe Debility Failing Maximal Conservative Medical and Surgical Therapies**

Matthew Skoblar, Brian Monroe  
*Geisinger Medical Center, Bloomsburg, PA*

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**The Mystery Case of the Edematous and Painful Foot: Refractory Lower Limb Complex Regional Pain Syndrome (CRPS) in the Setting of Lymphedema in a Patient with Endometrial Cancer and Lynch syndrome: A Case Report**

Michelle Chi, Isaac Syrop, Jonas Sokolof  
*New York Presbyterian Hospital of Columbia and Cornell, New York, NY*

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**A Case of Pneumocephalus After a Spinal Cord Stimulator Trial**

Gary Kim, Seung Lee  
*University of Maryland, Baltimore, MD*

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**Serratus Plane Block for Treatment of Chronic Chest Pain following Emergent Aortic Dissection Repair**

Daniel Judkins, Boris Spektor  
*Emory University, Atlanta, GA*

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**A Case of Remission of CRPS I after a Series of IV Regional Anesthetic Blocks with Clonidine**

Nicholas Schilling, Stephanie Jones  
*The University of Texas Southwestern, Dallas, TX*

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**A Medically Challenging Case of Ganglion Impar Neurolysis in a Patient with Significant Medical Comorbidities, Coccydynia and Severe Disability**

Kerolos Yousef, Brian Monroe  
*Geisinger Medical Center, Danville, PA*

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Ramesh Singa, Adam Young  
*Rush University Medical Center, Chicago, IL*

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**Oncologic Radiation-Induced Brachial Plexopathy**

Ingrid Yang, Christopher Reger, Joanna Jaros, Joseph Solberg  
*Northwestern University Feinberg School of Medicine, Chicago, IL*

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**Chronic Abdominal Pain in a Patient with Celiac Artery Compression Syndrome despite Surgical Correction**

Sachin Jha

*University of California, Los Angeles, Santa Monica, CA*

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**Sphenopalatine Ganglion Block for the Treatment of Postdural Puncture Headache**

Lance Hoffman, Timothy Burroughs, James Fortman

*University of Cincinnati Medical Center, Cincinnati, OH*

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**Genicular Nerve Blockade with Corticosteroid Adjunct for Chronic Knee Osteoarthritis Pain**

Adil M. Qarni, James K. Fortman, II

*University of Cincinnati Medical Center, Cincinnati, OH*

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**Selective S3 Transforaminal Epidural Steroid Injection for the Treatment of Postherpetic Neuralgia**

Bhumika Sherdiwala, Aman Upadhyay, Vikas Shah, Vivek Loomba

*Henry Ford Health System, Detroit, MI*

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**Caesarean Section in a Patient with Intracranial Arteriovenous Malformations: A Case Report**

Stephanie Cook

*Henry Ford Hospital, Detroit, MI*

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**When Vaginal Delivery EBL is Actually Referring to Epidural Blood Loss; What to do?**

Aditi Saraswat, Aman Upadhyay, Anoop Chhina, Vivek Loomba

*Henry Ford Health System, Detroit, MI*

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**Sciatica Secondary to Cervical Cancer**

Maria Cristancho, Gunar Subieta-Benito, Rafal Krejza

*John H. Stroger Hospital of Cook County, Chicago, IL*

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**C1-C2 Facet Arthropathy: Often Missed on MRI, CT Imaging Preferred**

Leia Rispoli, George Christolias, Michelle Chi

*New York Presbyterian - Columbia and Cornell, New York, NY*

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**Occipital Nerve Stimulator Replacement in a Patient with Refractory Occipital Neuralgia**

Keth Pride, Alaa Abd-Elseyed

*University of Wisconsin Hospital and Clinics, Madison, WI*

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Kristen Noon, Brian Kim, Mark Wallace

*The Ohio State University, Columbus, OH*

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Jason Lo, Keller Matthews

*Baylor Scott and White Health, Temple, TX*

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**Dural Puncture with Caudal Steroid Injections without Subsequent Post Dural Puncture Headache**

GaToya Simpson, Blake Sutton, Gulshan Doulatram, Michael Cook

*University of Texas Medical Branch, League City, TX*

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**Intractable Lumbosacral Pain and Radiculopathy from a Recurred Large Tarlov Cyst**

Meda Raghavendra, Rohan Meda

*Loyola University Medical Center, Bolingbrook, IL*

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**Cooled Radiofrequency Ablation in Combination with Kyphoplasty in the Treatment of Painful Primary and Metastatic Osteolytic Disease: A Case Series**

Christian Samuelson, Matthew Bral, Rinoo Shah, Sailesh Arulkumar, Horacio D'Agostino, Celia Sobelman

*Louisiana State University Health Sciences Center, Shreveport, LA*

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Rishi Modi, Jason Nakken, Nevinson Sam, Avinash Beeram

*University of Texas Medical Branch, Galveston, TX*

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**Brachial Plexus Blockade to Treat Severe Raynauds Phenomenon**

Marc Kaufmann, Eric Schwenk, Jaime Baratta

*Thomas Jefferson University Hospital, Philadelphia, PA*

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**Chronic Lamotrigine Use Leading to a False-Positive Phencyclidine (PCP) Result on a Urine Drug Screen**

Raj Parekh, Netsere Tesfayohannes  
*Georgetown University Hospital, Washington, DC*

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**A Case of Intrathecal Pump Failure: Catheter Knotting**

Shaan Sudhakaran, Tariq Malik  
*University of Chicago Hospital, Chicago, IL, USA*

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**Understanding Contrast Dye Spread in Lumbar Transforaminal Epidural Steroid Injections: Where is it Actually Going?**

Kimberly Ross, Chane Price, Esther Benedetti  
*University of Miami Miller School of Medicine / Jackson Memorial Hospital, Miami, FL*

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**Palliative Cooled Radiofrequency Ablation and Kyphoplasty to Vertebral Metastases: A Case Series**

John Kenny, Joshua Frenkel, Magdalena Anitescu  
*University of Chicago Medical Center, Chicago, IL*

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**Genicular Radiofrequency Ablation for Treatment of Posterior Thigh Pain**

Lauren Sylvester  
*University of Arkansas for Medical Sciences, Little Rock, AR*

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**Occipital Nerve Stimulator for Bilateral Occipital Neuralgia**

Andrew Wendahl, Alaa A Abd-Elseyed  
*University of Wisconsin, Madison, WI*

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**Epidural Blood Patch for Post Dural Puncture Headache in a Patient with Pseudotumor Cerebri**

Nevinson Sam, Jason Nakken, Adam Romman, Dawnna Walton, Deepinder Mann, Avinash Beeram  
*University of Texas Medical Branch Galveston, Houston, TX*

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Erica John, John-Paul Pozek, Eugene Viscusi  
*Thomas Jefferson University, Philadelphia, PA*

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Andrew Wendahl, Alaa A Abd-Elsayed  
*University of Wisconsin, Madison, WI*

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Peter Papapetrou, Steven Calvino, Shengping Zou  
*NYU School of Medicine, New York, NY*

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Michelle Chi, Leia Rispoli, George Christolias  
*New York Presbyterian Hospital of Columbia and Cornell, New York, NY*

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Leon Anijar, Donald Bohannon  
*University of Florida, Gainesville, FL*

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Grant Karno, Diya Goorah, P. Sebastian Thomas, Vandana Sharma  
*SUNY Upstate Medical University, Syracuse, NY*

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Mowafak Abdelghani, Mahmoud Alkholany, Mohanakrishnan Shanmugam  
*Central Manchester University Hospitals, CMFT, Manchester, Lancashire*

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Jie Luo, Elizabeth Wilson  
*University of Wisconsin Hospital and Clinics, Madison, WI*

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**Intranasal Ketamine as Maintenance Treatment for Refractory CRPS**

Jacob Mills, Vinita Singh

*Emory University School of Medicine, Atlanta, GA*

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**Bair Hugger Forced Air Warming System Affect on Perioperative Temperature and Post-Operative Infection in Patients Undergoing Total Knee-Replacement**

Keth Pride, Kristopher Schroeder

*University of Wisconsin Hospital and Clinics, Madison, WI*

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**Use of Terazosin for Bilateral Leg Pain in the Setting of Chronic Vascular Insufficiency following Aortic Aneurysm Repair**

Hashim Qureshi, Richard Rosenquist

*Cleveland Clinic Foundation, Cleveland, OH*

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**Post-Operative Pecs II Block with Inadvertent Superior Spread**

Brooke Bauer, Rebecca Myers, Shelly Ferrell

*University of Kentucky, Lexington, KY*

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**Post-Operative Pain Reduction Utilizing Bilateral Subcostal TAP and Classic TAP Blocks**

Jeremy Epstein, Brent Gilmore

*Medstar Georgetown University Hospital, Washington, DC*

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**The Use of a Peripheral Nerve Catheter as a Bridge to Neuromodulation In a Patient With Complex Regional Pain Syndrome**

Joshua Frenkel, Tariq Malik, John Kenny

*The University of Chicago, Chicago, IL*

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**Treatment of a Three-Year Old Child with Complex Regional Pain Syndrome (CRPS) Type I**

Erika Moody, Maged Mina, Maxim Eckmann

*University of Texas Health Science Center at San Antonio, San Antonio, TX*

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**Skin Necrosis Following Injection of Overly Buffered 1% Lidocaine/8.4% Bicarbonate Block Solution**

Ayman Tarabishy, Roger Haddad

*Henry Ford Hospital/Wayne State University, Detroit, MI*

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**New Approach to Splanchnic Nerve Block in Patient with Chronic Visceral Cancer Pain: A Case Report**

Ayman Tarabishy, Murali Patri, Eric Franz  
*Henry Ford Hospital/Wayne State University, Detroit, MI*

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**Clonid Toxicity After Intravenous Regional Blockade for Intractable Upper Extremity Complex Regional Pain Syndrome**

Joseph Schneider, Boris Spektor  
*Emory University, Atlanta, GA*

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**Spinal Epidural Abscess: Examination of Risk Factors**

Bilal Lateef, Dominika James, Jacob Wang  
*University of North Carolina, Durham, NC*

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**Successful Long-term Outpatient Pain Control of a Non-Healing Ulcer Secondary to a Radiation Burn Using an Epidural Elastomeric Pump**

Mehreen Iqbal, Brian Monroe, Brandon Beck, Kalyan Krishnan  
*Geisinger Health System, Danville, PA*

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**Hemarthrosis after Genicular Nerve Water Cooled Radiofrequency Ablation**

Kenneth Justin Naylor, Dost Khan  
*Northwestern University Feinberg School of Medicine, Chicago, IL*

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**Case of Intractable Pain from Pelvic CRPS I**

Maged Mina, Brad Culling, Maxim Eckmann  
*Spine and Surgical Hospital of South Texas, San Antonio, TX*

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**Severe Postoperative Neurological Complications Following Intrathecal Pump Implantation**

Jessica Albasha  
*University of Illinois at Chicago, Chicago, IL*

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**Use of Transversus Abdominis Plane (TAP) Steroidal Injections for Lasting Relief of Chronic Pain Caused by Surgical Disruption of the Abdominal Wall at Ostomy and PEGJ Tube Insertion Sites**

Aron Legler  
*Memorial Sloan Kettering Cancer Center, New York, NY*

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**Delayed Spinal Cord Ischemia in the Setting of an Indwelling Epidural Catheter**

Sathavaram Reddy, Maryam Jowza, Roniel Weinberg  
*University of North Carolina Hospitals, Chapel Hill, NC*

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**Pulsed Radiofrequency Ablation of the Superficial Peroneal Nerve for Foot and Ankle Pain: A Case Report**

Stephen Sarmiento, John Alexander  
*University of Texas Southwestern Medical Center, Dallas, TX*

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**Bilateral Subdural Hematomas from Multiple Spontaneous Dural Tears**

Michael Dorbad, Anthony Halupa, Mary Herman, Abdel Ragab  
*Geisinger Medical Center, Danville, PA*

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**Spinal Cord Stimulator Dysfunction After Myelogram: A Case Series**

Michael Dorbad, Adrian Mayo, Brian Monroe  
*Geisinger Medical Center, Danville, PA*

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**Transcutaneous Magnetic Stimulation In Managing Itch Related to Neuropathic Pain**

Charles Chaney, Albert Leung  
*UC San Diego, La Jolla, CA*

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Matthew Rahrig, Geeta Nagpal  
*Northwestern University, Chicago, IL*

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**Temporary Intrathecal Catheter Placement for Intractable Pain Due to Advance Anal Cancer**

Michael Pudenz, Hubert Cios  
*University of Wisconsin Hospital and Clinics, Madison, WI*

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**Ultrasound-Guided Transversus Abdominis Plane Block for the Treatment of Chronic Abdominal and Pelvic Pain**

Ranjit Sandhu, Alyssa Risk, Samir Fuleihan  
*Wayne State University/Detroit Medical Center, Detroit, MI*

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**A Case Report of Using the Wearable Pain Relief Device for the Treatment of Degenerative Chronic Joint Pain**

Kristine D. Watford, Mohammed U. Shaikh, Chaturani T. Ranasinghe  
*University of Miami/Jackson Health System, Miami, FL*

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**Bilateral Lumbar Medial Branch Block as Treatment Option for Bilateral Pars Interarticularis Fractures**

Adam Antflick, Kent Nouri  
*MD Anderson Cancer Center, Houston, TX*

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**Improved Efficacy for Stellate Ganglion Block for Complex Regional Pain Syndrome with Peri-Procedural Physical Therapy**

Matthew Mitchell, Vinita Singh  
*Emory University, Atlanta, GA*

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**Treatment Modality for Mirror Complex Regional Pain Syndrome**

Ajitpal Grewal, Abraham Kabazie  
*Allegheny Health Network, Pittsburgh, PA*

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**Analgesia in an Elderly Patient with Multiple Rib Fractures, Epidural Hematoma, and Acute Bronchitis**

Yohei Denawa, Rafik Tadros  
*Allegheny Health Network, Pittsburgh, PA*

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Alane Costanzo, Aaron Bernadette  
*Naval Medical Center San Diego, San Diego, CA*

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**Novel Use of the Transverse Abdominis Plane Block as a Diagnostic Implement for the Evaluation of Chronic Abdominal Pain.**

Lisa Marie Chargualaf, Ramesh M. Singa, Joshua D. Goldstein  
*Saint Barnabas Medical Center, Livingston, NJ*

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Qian Cece Chen, Paul Shekane, ShengPing Zou  
*NYU Langone Medical Center, New York*

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Heejung Choi, Brian Chung

*Northwestern University, Chicago, IL*

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Andrui Nazarian, Jihan Grant, Ariana Nelson

*University of California, Irvine, CA*

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Hiral Patel, Larry Driver, Mitchell Engle

*MD Anderson Cancer Center, Houston, TX*

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Harrison Linder, Seung Lee, Kanchana Gattu

*University of Maryland, Baltimore, MD*

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**Recurrent Desmoid Tumor Management with Cryoablation Therapy**

Nida Aziz, Ryan Galica, Jeffrey Hopcian, Matthew McEwan

*University Hospitals Case Medical Center, Cleveland, OH*

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Mohamed Osman, Egle Bavry

*University of Florida, Gainesville, FL*

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**Regional Anesthetic Technique in an Elderly Patient with Severe Pulmonary Hypertension**

Andrew Leitner, Christine Chang, Walter Chang, Michael Lew

*City of Hope National Medical Center, Duarte, CA*

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**Opioid Overdose in a Patient Using a Fentanyl Patch During Treatment with a Warming Blanket : A Case Report**

Asma Asif

*Henry Ford Health System, Detroit, MI*

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**A Parturient with Moyamoya Disease: Multi-Disciplinary Team Approach**

Asma Asif, Mohammed Malik, Ami Attali

*Henry Ford Health System, Detroit, MI*

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Neel Pandya, Alma Hoxha

*Metro Health Medical Center, Cleveland, OH*

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Brianna Twomey

*St. Vincent's Hospital, Melbourne, Australia*

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**Conus Medullaris Syndrome Following SCS trial: Symptoms, Diagnosis, and Treatment Options**

Daanish Khaja, Aman Upadhyay, Vivek Loomba

*Henry Ford Health Systems, Troy, MI*

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**Neuraxial Anesthesia in a Parturient with Olmsted Syndrome**

Marsha Ritter Jones, Bryant Bunting, Jessica Cassavaugh

*University of Pittsburgh Medical Center, Pittsburgh, PA*

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**Radiofrequency Neuroablation in a Patient With an Overlying, Spinal Cord Stimulator, Implantable Pulse Generator**

Shawn Amin, Andrew Kaufman, Anthony Sifonios, Vanny Le, Anant Parikh

*Rutgers New Jersey Medical School, Newark, NJ*

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**Atraumatic Hip Labral Tear Causing Groin Pain in Pregnancy**

Simon Willis, Alessandro Francella, Fariba Shah

*MedStar Georgetown University Hospital/National Rehabilitation Hospital, Washington, DC*

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**Intercostal Nerve Block for Neoplasm Related Pain**

Jasmine Rivas, Vinita Singh, Lisa Foster

*University of Medicine and Health Sciences, New York, NY*

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**Treatment of Post-Mastectomy Pain Syndrome with Use of a Peripheral Nerve Stimulator**

Sailesh Arulkumar, Hany Rayan, Christian Samuelson, Matthew Bral, Rinoo Shah

*Case Western Reserve University/University Hospitals, Cleveland, OH*

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**Spinal cord stimulation for pudendal neuralgia: What is the optimal lead placement target?**

Sandeep Kataria, Aman Upadhyay, Ayman Tarabishy, Vivek Loomba

*Henry Ford Hospital, Detroit, MI*

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**Successful Spinal Cord Stimulator Treatment for Long-Standing Complex Regional Pain Syndrome**

Erica Patel, David Hao, Shruti Shah, William Grubb, Geza Kiss

*Rutgers Robert Wood Johnson Medical School, Voorhees, NJ*

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**Thoracic Epidural For Post-Operative Pain Management: The Hanging Drop Technique**

Ngozi Onyesoh, Michael Howkins

*Case Western Reserve University-MetroHealth, Cleveland, OH*

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**An Unusual Presentation of Cauda Equina Syndrome**

William Grubb, Matthew Johnson, Erica Patel, David Hao

*Rutgers Robert Wood Johnson Medical School, New Brunswick, NJ*

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**Out of the Darkness: Using Sphenopalatine Ganglion Blocks to Reduce Headache Symptoms in a Patient with Spontaneous Dural Rupture**

Oleg Turkot, Hasandeep Mann, Oleg Kinachtchouk, Shantha Ganesan

*SUNY Downstate Medical Center, Brooklyn, NY*

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**Intrathecal Morphine Pump in Managing Intractable Low Back Pain with Severe COPD**

Chen Qian Cece, Michael Hershey, Joseph Largi, ShengPing Zou

*NYU Langone Medical Center, New York, NY*

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**Administration of tPA for Ischemic Stroke after Lumbar Radiofrequency Ablation**

Anant Parikh, Christian Estrada, Shawn Amin, Anthony Sifonios, Vanny Le, Andrew Kaufman

*Rutgers New Jersey Medical School, Newark, NJ*

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**Pulsed Radiofrequency Ablation for Brachial Plexopathy due to Metastatic Infiltration: A Case Report**

Timothy Sowder, Usman Latif

*Kansas University Medical Center, Kansas City, KS*

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**Combination Bupivacaine Femoral Nerve Block and Intramuscular Botulinum Toxin Injection for Chronic Lower Extremity Spasticity After Gunshot Wound**

Sam Nia, Romina Arceo, Ajay Lall, David Vahedi

*Mount Sinai Beth Israel, New York, NY*

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**Flank Pain: An Uncommon Site for Tietze Syndrome**

Sandeep Kataria, Aman Upadhyay, Vivek Loomba, Vikas Shah

*Henry Ford Hospital, Detroit, MI*

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**No Evidence of Disease Diagnosis of Metastatic Breast Carcinoma During Management of a Spinal Cord Stimulator**

M. Cody Scarbrough, Maged Guirguis

*Ochsner Medical Center, New Orleans, LA*

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Jonathan Paek, Megan Burger, Jose Rivers, George Atallah, Ruba Elmaoued

*Baylor College of Medicine, Houston, TX*

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Sean Gamble, Eugene Kim

*Children's Hospital of Los Angeles, Los Angeles, CA*

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Jaudat Mahmood, Effrossyni Gina Votta-Velis

*University of Illinois Hospital and HSC, Chicago, IL*

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Jonathan Paek, George Atallah

*Baylor College of Medicine, Houston, TX*

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Puneet Mishra, Christopher Sobey

*Vanderbilt University Medical Center, Nashville, TN*

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G. Sunny Sharma, Chirag Vora, David E. Fish

*UCLA/VA Greater Los Angeles Healthcare System, Los Angeles, CA*

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Teresa Kusper, Nebojsa N. Knezevic, Kenneth D. Candido

*Advocate Illinois Masonic Medical Center, Chicago, IL*

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David Chang, Pezhman Mehrabian, Michal Hubka, Kevin Vorenkamp, James Babington

*Virginia Mason, Seattle, WA*

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Stephen Swank, Robert Hsiung, Michal Hubka, James Schlenker

*Virginia Mason Medical Center, Seattle, WA*

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Jill E. Sindt, Daniel W. Odell, Shane E. Brogan

*University of Utah Department of Anesthesiology, Salt Lake City, UT*

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Victor Foorsov, Armin Doroe, Joseph Abdalmalak

*Cleveland Clinic Foundation, Cleveland, OH*

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Michael Bartoszek, Amy McCoart, Kyung-soo Jason Hong, Chelsey Haley, Anthony Plunkett  
*Womack Army Medical Center, Fort Bragg, NC*

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Yun-Sic Bang

*International St. Mary's Hospital, Catholic Kwandong University College of Medicine, Incheon, South Korea*

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*Brigham and Women's Hospital/Harvard Medical School, Boston, MA*

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**Post-Operative Pain Expectations: Are Patients Accurate?**

Amir C. Dayan, Jack Qiu, Marc W. Kaufmann, Jaime L. Baratta, Eugene R. Viscusi

*Thomas Jefferson University Hospital, Philadelphia, PA*

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Stephan Klumpp, Treniece Eubanks, Taylor Cox, Preeti Sheth, Rachel Meeks

*Jackson Memorial Hospital/ University of Miami, Miami, FL*

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Sung Yong Park, Jin Soo Kim, Han Bum Joe, Sook Young Lee

*Ajou University, School of Medicine, Suwon, Korea*

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Hee Yong Kang, Jun-Oik Shin, Sung-Wook Park

*Kyung Hee University Hospital, Seoul, Republic of Korea*

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**Comparative Analysis of Length of Stay, Hospitalization Costs, and Opioid use among Spine Surgery Patients with Postoperative Pain Management including IV versus Oral Acetaminophen**

Ryan Hansen, An Pham, Elaine Boing, Belinda Lovelace, George Wan, Timothy Miller  
*University of Washington, Seattle, WA*

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**Reduced Length of Stay and Hospitalization Costs among Inpatient Hysterectomy Surgery Patients with Postoperative Pain Management including IV versus Oral Acetaminophen**

An Pham, Ryan N. Hansen, Belinda Lovelace, Elaine A. Böing, George J. Wan, Richard Urman  
*Mallinckrodt Pharmaceuticals, Hampton, NJ*

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**Reduced Length of Stay and Hospitalization Costs among Inpatient Cholecystectomy Surgery Patients with Postoperative Pain Management including IV versus Oral Acetaminophen**

An Pham, Ryan N. Hansen, Elaine A. Böing, Belinda Lovelace, George J. Wan, Donna-Ann Thomas, Manuel Fontes  
*Mallinckrodt Pharmaceuticals, Hampton, NJ*

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**Implementation of PCA Service at Recently Opened Hospital, Cleveland Clinic Abu Dhabi**

Amit Asopa, Markus Haisjackl, Massimo Ferrigno, Rabih Dabliz, Susan Gador  
*Cleveland Clinic Abu Dhabi, Abu Dhabi*

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**Multimodal Pain Relief with Intravenous Magnesium, Lidocaine, and Ketorolac in Patients with Opiate-Insensitive, Post-Operative Pain**

Edwin Lin, Jerry Luo, Jack Berger  
*Keck School of Medicine of USC, Los Angeles, CA*

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Krishna Devarakonda, Luke Lu, Yin Chen, Sutan Wu, Lawrence Hill, Jarrett Brant  
*Mallinckrodt Pharmaceuticals, Hampton, NJ*

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Yian Chen, Julie Huang, Steven Cohen  
*Johns Hopkins University School of Medicine, Baltimore, MD*

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Gabriel L. Pagani-Estevez, Thomas P. Pittelkow, Bradford Landry, Matthew J. Pingree, Jason S. Eldrige  
*Mayo Clinic, Rochester, MN*

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Gabriel Smith  
*Mayo Clinic, Rochester, MN*

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Matthew McEwan, Salim Hayek, Ryan Galica  
*University Hospitals Case Medical Center, Cleveland, OH*

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Lily Jingco  
*Corazon Locsin Montelibano Memorial Regional Hospital, Bacolod, Negros Occidental*

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Burton Beakley  
*Tulane Medical Center, New Orleans, LA*

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Katerina Lin, Lino Becerra, David Borsook  
*Boston Children's Hospital; Harvard Medical School, Boston, MA*

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SukHoon Ohn, CheongHoon Seo, Chang-hyun Park, MyungHun Jung, Kwang-Ik Jung, Woo-Kyoung Yoo, Soyeon Jang, Yoonkyeong Kang

*Hallym University College of Medicine, Anyang, Republic of Korea*

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Khodadad Namiranian

*Baltimore VA Medical Center, Baltimore, MD*

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Hari Prabhakar, Mahesh Mathpati, Lucy Chen

*MGH Center for Pain Medicine, Massachusetts General Hospital, Boston, MA*

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**Classification of Chronic Neck Pain: A Longitudinal Cohort Study**

Richard Liu, Connie Kurihara, Huei-ting Tsai, Steven Cohen

*Walter Reed National Military Medical Center, Bethesda, MD*

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Christopher Aiudi, Rebecca Sanders, Susan Moeschler, Michael Hooten, Halena Gazelka, James Watson, Bryan Hoelzer, Tim Lamer

*Mayo Clinic, Rochester, MN*

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**Opportunistic Bone Density Assessment Using CT Attenuation Following Vertebral Augmentation Procedures**

Osa Emohare, Rahul Rastogi

*University of Iowa Hospitals and Clinics, Iowa City, IA*

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**A Novel Approach To Bone Density Assessment in Adolescent Idiopathic Scoliosis**

Osa Emohare, Walter Truong, Cristina Alves, Pedro Cardoso, David Polly

*University of Iowa Hospitals and Clinics, Iowa City, IA*

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**Prevalence and Clinical Implications of Hypovitaminosis D among Patients with Fibromyalgia**

Vwaire Orhurhu, Lin Ge, Michael Hooten, Wenchun Qu

*Beth Israel Deaconess Medical Center, Boston, MA*

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**The Association of Vitamin D Deficiency with Sleep Difficulty, Anxiety, and Depression in Fibromyalgia Patients**

Vwaire Orhurhu, Ge Lin, Michael Hooten, Wenchun Qu  
*Beth Israel Deaconess Medical Center, Boston, MA*

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**Treatment of Chronic Restless Legs Syndrome with Radiofrequency Ablation of the Lumbar Medial Branch Nerves (L3, L4, L5)**

Victor Leslie, Thelma Wright  
*University of Maryland Medical Center, Baltimore, MD*

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**Pre-Procedure Temperature Does Not Predict the Outcome of Sympathetic Blocks**

Vafi Salmasi, Jing You, Edward Mascha, Michael Grille, Jianguo Cheng  
*Stanford University School of Medicine, Palo Alto, CA*

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**Inpatient Ketamine Infusion for Chronic Neuropathic Pain on Regular Floor with Physical Therapy is Efficacious, Safe, Cost-Effective**

Xiaoying Zhu, Joseph Dichiara, Lynn Kohan, Robert Goldstein  
*University of Virginia, Charlottesville, VA*

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**Advance Practice Providers in Interventional Pain Medicine: Creation of a New Role**

Heather Jackson  
*Vanderbilt University Medical Center, Franklin, TN*

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**Cooled Radiofrequency Ablation of the Genicular Nerves for Chronic Pain due to Knee Osteoarthritis: 6-month outcomes & Predictors of Successful Treatment Response**

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*University of California at San Francisco, San Francisco, CA*

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Joel Janssen, Steven Macaluso, Swati Mehta  
*Schulich School of Medicine and Dentistry, London, ON*

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**Anatomical Basis of Genicular Nerves: Implications for Radiofrequency Ablation as a Treatment for Chronic Knee Pain**

Ferdinand Iannaccone, Soo Yeon Kim, Jung Kim, Phuong Le  
*Mount Sinai St. Lukes, New York, NY*

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**Effects of Hypertonic NaCl Pre-injectate on In vivo Radiofrequency Lesion Size in Pig Skeletal Muscle**

David Provenzano, Eric Cosman Jr., Jared Wilsey  
*Pain Diagnostics and Interventional Care, Bridgeville, PA*

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**High Incidence of Fibromyalgia in Patients with Failed Back Surgery Syndrome**

Esther Caballero-Manrique, Carlos A. Pino  
*University of Vermont Medical Center, Burlington, VT*

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**Pharmacokinetics and Safety of Fentanyl Sublingual Spray and Intravenous Fentanyl Citrate in Adult Opioid-Naive Healthy Volunteers: A Randomized, Open-Label, Single Ascending Dose Study**

Richard Rauck, D. Alexander Oh, Neha Parikh, Christina Cognata Smith, Christian Koch, Jin Yu, Srinivas Nalamachu, Santosh Vetticaden  
*Carolinas Pain Institute and The Center for Clinical Research, Winston Salem, NC*

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Mordechai Bronner, Miranda Warner  
*University of Vermont Medical Center, Burlington, VT*

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**Interventional Pain Procedures in the Elderly Population Lowers Opioid Use and Improves Post Operative Outcomes**

Stewart Eidelson, David Eidelson, Vivienne Paoletti  
*American Board Orthopedics, Delray Beach, FL*

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**Correlation of Appointment Status and Insurance Provider for Returning Patients in an Academic Pain Clinic**

Richard Sims  
*University of Florida, Gainesville, FL*

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**Cannabinoids for Chronic Neuropathic Pain: A Systematic Review and Meta-Analysis**

Howard Meng, Marina Englesakis, Anuj Bhatia  
*University of Toronto, Toronto, Ontario, Canada*

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**Long-Term Results of Chronic Intractable Back And Leg Pain in A Cohort of Subjects with Spinal Deformities Treated with High Frequency Spinal Cord Stimulation (HF-SCS) At 10 Khz: A SENZA-RCT Sub-Analysis**

Richard Bundschu, Cong Yu, Thomas Yang, B. Todd Sitzman, Ramsin Benyamin, Ricardo Vallejo, Matthew Doust, Abram Burgher, Kerry Bradley, Jeyakumar Subbaroyan  
*Coastal Orthopedics and Sports Medicine, Bradenton, FL*

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**Survey of IV Ketamine Infusion Regimens for The Treatment of Complex Regional Pain Syndrome**

Jijun Xu

*Pain Management - C25, Cleveland Clinic, Shaker Heights, OH*

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**Long-Term Outcomes of Anatomically-Guided (3D) Neural Targeting Spinal Cord Stimulation: Final Results of the LUMINA Study**

Salim Hayek, Elias Veizi, James North, T. Brent Chafin, Thomas L. Yearwood, Louis Raso, Robert Frey, Kevin Cairns, Anthony Berg, John Brendel, Nameer Haider, Matthew McCarty, Henry Vucetic, Alden Sherman, Lilly Chen, Nitzan Mekel-Bobrov

*University Hospitals - Case Western Reserve Medical Center, Cleveland, OH*

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**Risk Assessment of Opioid Addiction with a Multi-Variant GenetiPanel in the Mesolimbic Dopamine System**

Sherman Chang, Richard Hudspeth, Joselito Lopez, Ram Vairavan, Forest Tennant

*AutoGenomics Inc, Carlsbad, CA*

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**Utilization of Multiple Spinal Cord Stimulation Waveforms in Chronic Pain Patients**

Anthony Berg, Dat Huynh, Nitzan Mekel-Bobrov

*Spine Team Texas, Rockwall, TX*

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**Spinal Cord Stimulation (SCS) Trial Outcomes after Conversion to a Multiple Waveform SCS System**

Nameer Haider, Nathan Miller, Christopher Gilmore, Gregory Moore, Richard M. Paicius, Eduardo Garcia, Nitzan Mekel-Bobrov

*Spine and Skeletal Pain Medicine, Utica, NY*

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**Discussion of Neuromodulation Predicts Immediate Prescribing Patterns**

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*The Cleveland Clinic Foundation, Cleveland, OH*

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**Real World Disability and Productivity Outcomes Following Anatomically-Guided (3D) Neural Targeting Spinal Cord Stimulation**

Robert Frey, Rajni Jutla, Nitzan Mekel-Bobrov  
*Pacific Pain Management, Ventura, CA*

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**Spinal Neuronal Activity Varies for SCS Modes After Painful Radiculopathy**

Christine Weisshaar, Alexander Kent, Lalit Venkatesan, Beth Winkelstein  
*University of Pennsylvania, Philadelphia, PA*

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**Comparison of Burst SCS Paradigms on Acute Spinal Neuronal Activity in a Rat Model of Painful Radiculopathy**

Christine Weisshaar, Alexander Kent, Lalit Venkatesan, Beth Winkelstein  
*University of Pennsylvania, Philadelphia, PA*

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Timothy Davis, Eric Loudermilk, Michael DePalma, Corey Hunter, David Lindley, Nilesh Patel, Daniel Choi, Marc Soloman, Anita Gupta, Asokumar Buvanendran, Mehul Desai, Leonardo Kapural  
*Orthopedic Pain Specialists, Santa Monica, CA*

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**The Efficacy of High-Density Spinal Cord Stimulation among Trial, Implant, and Conversion Patients: A Retrospective Case Series**

David Provenzano, Jared Rebman, Cody Kuhel, Jason Kilgore  
*Pain Diagnostics and Interventional Care, Bridgeville, PA*

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**Evaluation of Chronic Pain Management Practice Patterns for Primary Care Physicians**

David Provenzano, Khalid Kamal, Vincent Giannetti  
*Pain Diagnostics and Interventional Care, Bridgeville, PA*

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**The Effect of the Preinjection of Hypertonic Saline on Lesion Parameters with Bipolar Radiofrequency**

David Provenzano, Zachary Drennen, Cody Kuhel, Nicholas Kim  
*Pain Diagnostics and Interventional Care, Bridgeville, PA*

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Hannah Chung, Jung Hwan Kim, Soo Yeon Kim, Woojin Cho  
*Mount Sinai West, New York, NY*

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*Chung Yuan Christian University, Taiwan*

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Lalitha Sundararaman, Robert Jamison, Edgar Ross, Anna Mei  
*Brigham and Women's Hospital, Boston, MA*

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**The Effects of Radiofrequency Neurotomy on Patients with Sacroiliac Joint Pain: Results from a Sham-Controlled, Randomized Trial**

Kavita Poply, Michael Husband, Sibtain Anwar, Richard Langford, Adil Raza, Vivek Mehta  
*St. Jude Medical, Plano, TX*

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Brendan Keen, Jay Lee, Omar Syed, Richard Amdur, May Chin  
*George Washington University, Washington, DC*

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**Intrathecal Drug Delivery System (IDDS) with Fentanyl and Bupivacaine for Chronic Nonmalignant Pain, 1 & 2-year follow-up: Case Series**

Timothy Ade, Salim Hayek, Mahesh Mohan, Melinda Lawrence, Elias Veizi  
*University Hospitals at Case Medical Center, Cleveland, OH*

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**Factors Determining Development of Opioid-Induced Constipation in Chronic Pain Patients and Difference in Therapeutic Approach**

Nebojsa Nick Knezevic, Vipin Khare, Tatiana Tvrdohle, Ivana Knezevic, Kenneth D. Candido  
*Advocate Illinois Masonic Medical Center, Chicago, IL*

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**Paresthesia-Free Analgesia with Subthreshold Stimulation of the Dorsal Root Ganglia**

Paul Verrills, Bruce Mitchell, David Vivian, Alicia Kimber, William Cusack, Jeffery Kramer  
*Metro Pain Group, Clayton, VIC, Australia*

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**A Preliminary Report on the Treatment of Low Back Pain with Stimulation of the L2-L3 Dorsal Root Ganglia**

Frank Huygen, Liong Liem, William Cusack

*University Hospital Rotterdam, Rotterdam, Netherlands*

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**Oral Methylnaltrexone for the Treatment of Opioid-Induced Constipation (OIC) in Patients with Chronic Noncancer Pain**

Richard Rauck, Nancy Stambler, Joseph Harper, Robert Israel  
*Carolinas Pain Institute, Winston Salem, NC*

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**Oral Methylnaltrexone is Efficacious and Well Tolerated for the Treatment of Opioid-Induced Constipation in Patients with Chronic Noncancer Pain Taking Concomitant Methadone**

Lynn Webster, Joseph Harper, Robert Israel  
*PRA Health Sciences, Salt Lake City, UT*

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**Intraarticular PRP Injection with Clonidine has Better and Longer Pain Relief for Arthritic Pain**

Phani Paruchuri, Laxmisrinivas Paruchuri, Surya teja Paruchuri  
*Anaheim Regional Medical Center, Anaheim, CA*

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**Oral Methylnaltrexone Does Not Negatively Impact Analgesia in Patients with Opioid-Induced Constipation and Chronic Noncancer Pain**

Lynn Webster, Joseph Harper, Robert Israel  
*PRA Health Sciences, Salt Lake City, UT*

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**Percutaneous Neurolytic Celiac Plexus Block for Treatment of Pancreatic Cancer Pain: A Systematic Review and Meta-Analysis**

Vwaire Orhurhu, Mariam Salisu, Rana Paragi, Steven Cohen  
*Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA*

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**Intra-Thalamus Injection of ZD7288 Reduced Nociceptive Behavior in Rats**

Weihua Ding, Shengmei Zhu  
*The First Affiliated Hospital of Zhejiang University, Hangzhou, Zhejiang*

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**Intrathecal Trialing of Combination Therapy with Hydromorphone and Bupivacaine: a Retrospective Review with 2-Year Follow-up**

Ryan Galica, Salim Hayek, Ilir Elias Veizi, Matthew McEwan, Nida Aziz, Nidhi Sondhi, Sivakanth Katta, Omar Ali  
*University Hospitals Case Medical Center, Cleveland Heights, OH*

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**Innervation of the Anterior Hip Joint: Relation to Bony Landmarks for Ultrasound Guided Intervention**

Ehtesham Baig, Jessi Jo Barnett, Michael Gofeld, Anne Agur, Philip Peng  
*University of Toronto, Toronto, ON*

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**Once-daily Gastroretentive Gabapentin has Equal Analgesic Efficacy in both Gabapentin-Naïve and Gabapentin-Experienced Patients with Chronic Post-amputation Pain**

Nebojsa Nick Knezevic, Alexei Lissounov, Ivana Knezevic, Kenneth D. Candido  
*Advocate Illinois Masonic Medical Center, Chicago, IL*

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**Outcome Measurements in Chronic Pain Patients following Outpatient Ketamine Infusions.**

Karim Kherbache, Karthik Dwarki, Gabriela Calhoun, May Chin, Ramon Go, Xiangyu Kuang, Richard Amdur  
*The George Washington University School of Medicine, Washington, DC*

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**Spinal Cord Stimulation Infection Rate and Risk Factors: Results from a United States Payer Database**

David A Provenzano, Steven M Falowski, Ying Xia, Alissa H Doth  
*Pain Diagnostics and Interventional Care, Sewickley, PA*

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**Obesity and Smoking do not Interfere with the Efficacy of Spinal Cord Stimulator and do not Predispose to Higher Rates of Infection**

Nebojsa Nick Knezevic, Alexei Lissounov, Ivana Knezevic, Kenneth D. Candido  
*Advocate Illinois Masonic Medical Center, Chicago, IL*

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**The Predictive Value of Short-Term Spinal Cord Stimulation Trials in Determining Long-Term Pain Relief**

Ricardo Vallejo, Leonardo Kapural, Cong Yu, Matthew Doust, Bradford Gliner, B. Tood Sitzman, Kasra Amirdelfan, Donna Morgan, Thomas Yearwood, Richard Bundschu, Thomas Yang, Ramsin Benyamin, Abram Burgher  
*Millennium Pain Center, Bloomington, IL*

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**Sustained Effectiveness of Intrathecal Ziconotide Use in Patients With Severe Chronic Pain**

Michael Saulino, Timothy Deer, Philip Kim, Mark Wallace, I-Zu Huang, Fannie Mori, Geertrui Vanhove, Gladstone McDowell, Richard Rauck  
*MossRehab, Elkins Park, PA*

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**Safety and Efficacy of Intrathecal Ziconotide in Patients with Complex Regional Pain Syndrome**

Mark Wallace, I-Zu Huang, Richard Rauck  
*University of California, San Diego, La Jolla, CA*

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**Effectiveness and Safety Intrathecal Ziconotide Use as the First Agent in Pump**

Gladstone McDowell, Richard Rauck, Michael Saulino, Philip Kim, Mark Wallace, I-Zu Huang, Geertrui Vanhove, Timothy Deer  
*Integrated Pain Solutions, Columbus, OH*

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**Reliability and Validity of the Thai Short-form McGill Pain Questionnaire-2 (SF-MPQ-2)**

Nuj Tontisirin, Phakapan Buppha, Roderick Finlayson  
*Faculty of Medicine, Ramathibodi Hospital, Bangkok, Thailand*

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**Prescription Patterns for Chronic Pain Patients in a Recently Opened Pain Management Clinic in United Arab Emirates.**

Amit Asopa, Markus Haisjackl, Massimo Ferrigno, Susan Gador, Rabih Dabliz  
*Cleveland Clinic Abu Dhabi, Abu Dhabi*

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**Effect of Intrathecal Ziconotide as the First Agent in Pump On Patient-Reported Outcomes**

Timothy Deer, Richard Rauck, Michael Saulino, Philip Kim, Mark Wallace, I-Zu Huang, Geertrui Vanhove, Gladstone McDowell  
*The Center for Pain Relief, Charleston, WV*

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**Quality & Safety in Ambulatory Pain Management: Policy Change as Outcome of Root Cause Analysis Case of Motor Weakness following Lumbar Interlaminar Epidural Steroid/Bupivacaine Injection**

Ariana Nelson, Danielle Perret, Shalini Shah, Jihan Grant, Andru Nazarian, Douglas Merrill  
*University of California – Irvine, Costa Mesa, CA*

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**Burst Stimulation Provided Effective Pain Relief and Reduced Pain Catastrophizing with Less Paresthesia: Interim Analysis of a Large, Post Market Study**

Tony Van Havenbergh, Jan Vesper, Michael Kretschmar, Ganesan Baranidharan, Giuliano De Carolis, Alfonso Papa, Mathieu Lenders, Matthias Morgalla, Paul D'Urso, Athanasios Koulousakis, Murray Taverner, Ashish Gulve, Rolf Karlsten, Harold Nijhuis, Roni Diaz  
*AZ Sint-Augustinus, Wilrijk, Belgium*

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**Spinal Cord Stimulation: Beneficial Effects in Intractable Neuropathic Pain after Cardiac Catheterization**

Mohamed Osman, Rene Przkora, Shawn Hughes, Timothy Vollmer, Manish Shah, Windrik Lynch  
*University of Florida, Gainesville, FL*

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**Observational Study to Evaluate a Predictive Algorithm of Fibromyalgia Risk and Treatment**

Ashley Brenton, Chee Lee, Svetlana Kantorovich, Brian Meshkin  
*Proove Biosciences, Irvine, CA*

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**The Role of Clinical Nursing in a Chronic Cancer Pain Management Setting as Measured by the Chronic Pain Assessment Questionnaire**

Jennifer Grimmer, Martha Bentley-McLachlan, Ravi Alluri, Benjamin Matson, Oscar deLeon-Casasola  
*Roswell Park Cancer Institute, Buffalo, NY*

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**Burst Spinal Cord Stimulation Programming Optimization: Interim Clinical Outcomes for Subjects Programmed with a Burst-specific Programming Strategy**

Edward Tavel, Kasra Amirdelfan, Gregory Phillips, Carroll McLeod, Alain Fabi, Rafael Justiz, Steven M. Falowski, Holly Fontenot  
*Clinical Trials of South Carolina, Charleston, SC USA*

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**Influence of Ethnicity and Racial Differences on Acute and Chronic Pain**

Behnoosh Rahavard, Nebojsa Nick Knezevic, Kenneth D. Candido  
*Advocate Illinois Masonic Medical Center, Chicago, IL*

**Scientific Abstracts: Education**

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**Establishing a Regional Anesthesia Service in a Low-Income Country: Factors Influencing Implementation**

Matthew Ho, Patricia Livingston, M Dylan Bould, Damascene Nyandwi, Francoise Nizeyimana, Jennifer Szerb, Jean Bonaventure Uwineza, Robin Urquhart  
*Dalhousie University, Halifax, NS, Canada*

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**Laser Assisted Guided Approach for Needle Placement during Peripheral Nerve Blocks**

Michael Kolczynski  
*John H. Stroger Hospital of Cook County, Chicago, IL*

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**Is Perioperative Administration of 5% Dextrose Effective in Reducing the Incidence of PONV in Laparoscopic Cholecystectomy? : A Randomized Control Trial**

Ravinder Kumar Pandey, Ankita Mishra, Chandra lekha, Vanlal Darlong, Jyotsna Punj, Vimi Rewari, Virinder Kumar Bansal

*All India Institute of Medical Sciences, New Delhi, India*

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**Pain Medicine Fellowship Training Meets ImmersiveTouch® : Virtual Reality Simulation for Interventional Pain Procedures**

Dalia Elmofty

*University of Chicago, Chicago, IL*

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**Use of Three-Dimensional Printing to Create Patient-Specific Thoracic Spine Models as Task Trainers**

Jelliffe Jeganathan, Yanick Baribeau, Jeffrey Bortman, Feroze Mahmood, Marc Shnider, Muneeb Ahmed, Azad Mashari, Yannis Amador, Rabia Amir, Robina Matyal

*Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA*

**Scientific Abstracts: Emerging Technology**

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**Current Understanding of Safety and Efficacy of Stem Cell Therapy for Discogenic Pain a Systematic Review of Human Studies**

Christine Hunt, Stephanie Shen, Ahmad Nassr, Andre van Wijnen, Noelle Larson, Jason Eldrige, William Mauck, Mathew Pingree, Patricia Erwin, Mohamad Bydon, Wenchun Qu

*Mayo Clinic, Rochester, MN*

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