
EDITORIAL
443 Steven A. King, MD, MS
Opioids and Coronary Heart Disease

GENERAL SECTION
Original Research Articles

444 Yulia Khodneva, MD, PhD, Paul Muntner, PhD, Stefan Kertesz, MD, MSc, Brett Kissela, MD, and Monika M. Safford, MD
Prescription Opioid Use and Risk of Coronary Heart Disease, Stroke, and Cardiovascular Death Among Adults from a Prospective Cohort (REGARDS Study)
We examined an association of therapeutic prescription opioid use and three cardiovascular (CVD) outcomes (coronary heart disease (CHD), CVD death and stroke) separately in a large cohort of community dwelling adults from all states of the continental US. Compared to non-users of opioids, female but not male prescription opioid users had a higher risk of CHD and CVD death over five years of follow up, controlling for a host of cardiovascular risk factors at baseline.

456 Natalie E. Allen, PhD, Cassandra M. Wong, BAppSc (Phy) Hons, Colleen G. Canning, PhD, and Niamh Moloney, PhD
The Association Between Parkinson’s Disease Motor Impairments and Pain
Parkinson’s disease is a relatively common neurodegenerative condition with no known cure. This study investigated pain and its association with impairments in people with Parkinson’s disease. Many people with Parkinson’s disease experience frequent and problematic pain. Impairments were associated with frequent pain and pain that interferes with work. Rigidity was strongly associated with pain, while tremor was not. Further studies, including the development of a Parkinson’s disease-specific pain assessment tool, are warranted.

Brief Research Report
463 Ann Vincent, MD, Mary O. Whipple, BA, BSN, RN, CCRP, and Lori M. Rhudy, PhD, RN, ACNS, CNRN
Fibromyalgia Flares: A Qualitative Analysis
Patients with fibromyalgia report periods of symptom exacerbation, colloquially referred to as “flares” but no research has purposefully evaluated the presence and characteristics of flares in fibromyalgia. In this qualitative study, patients were asked to describe their experience with fibromyalgia flares. Our results demonstrate that periods of symptom exacerbation (i.e. flares) are commonly experienced by patients with fibromyalgia and symptoms of flares can be differentiated from every day or typical symptoms of fibromyalgia.

Commentary
469 Rami Bou Khalil, MD, Elie Khoury, MD, and Sami Richa, MD, PhD
Do Fibromyalgia Flares Have a Neurobiological Substrate?
FM is a chronic pain syndrome but its natural evolution is also characterized by periods of symptom exacerbations known as “flares” triggered by stressful situations. It seems that these flares begin centrally due to a central sensitization phenomenon but are amplified by HPA axis and ANS aberrant activations in response to stress. This central sensitization manifests by a dysregulation of several nociceptive neurotransmitters – mainly substance P – resulting in painful perceptions in different body locations with minimal stimulation, and with repetitive stressful events and subsequent FM flares, an integration of the painful experiences.

continued.
SPINE SECTION

Original Research Articles

476 Seong-Soo Choi, MD, PhD, Jong-Hyuk Lee, MD, Doohwan Kim, MD, Hyun Kyu Kim, MD, Sohee Lee, MD, Kyo Joon Song, MD, Jin Kyu Park, MD, and Jae Hang Shim, MD, PhD

Effectiveness and Factors Associated with Epidural Decompression and Adhesiolysis Using a Balloon-Inflatable Catheter in Chronic Lumbar Spinal Stenosis: 1-Year Follow-Up

The combined percutaneous epidural adhesiolysis and balloon decompression with a balloon-inflatable catheter led to significant pain relief and functional improvement in a subset of patients with refractory spinal stenosis. This combined treatment could provide a useful alternative to help overcome the limitations of a pre-existing adhesiolysis procedure. Diabetes and co-existing lower back pain might be independently associated with a successful response 12 months after this procedure.

488 Rishi Bakshi, DO, Hassen Berri, DO, Claire Kalpakjian, PhD, and Matthew Smuck, MD

The Effects of Local Anesthesia Administration on Pain Experience During Interventional Spine Procedures: A Prospective Controlled Trial

This clinical trial challenges the use of cutaneous lidocaine injections during interventional spine procedures. We compare procedural pain experiences using the traditional injection method compared to both an alternative injection method, and to using no cutaneous anesthesia. This trial demonstrates that the traditional method of local anesthetic injection may not be optimal for mitigating pain during interventional spine procedures.

EDUCATION & TRAINING SECTION

Original Research Article

494 Britton Mann, DAOM, Elizabeth Burch, ND, and Charol Shakeshaft, PhD

Attitudes Toward Acupuncture Among Pain Fellowship Directors

This survey study reveals positive attitudes towards acupuncture among Pain Medicine Fellowship Directors in the United States. The data suggests widespread availability of acupuncture at academic medical centers. Though not mandated by the American College of Graduate Medical Education, inclusion of acupuncture into didactic and clinical fellowship curricula is common. Acupuncture is becoming an important and well-accepted non-pharmacologic intervention for chronic pain in pain medicine training.

PAIN & AGING SECTION

Original Research Article

501 Julie M. Fritz, PT, PhD, Sean D. Rundell, PT, DPT, PhD, Paul Dougherty, DC, Angela Gentili, MD, Gary Kochersberger, MD, Natalia E. Morone, MD, MS, Srinivasa Naga Raja, MD, Eric Rodriguez, MD, Michelle I. Rossi, MD, MPH, Joseph Shega, MD, Gwendolyn Sowa, MD, PhD, and Debra K. Weiner, MD

Deconstructing Chronic Low Back Pain in the Older Adult—Step by Step Evidence and Expert-Based Recommendations for Evaluation and Treatment. Part V: Lumbar Spinal Stenosis

A multidisciplinary expert panel convened to create an algorithm and supportive materials to help guide primary care providers in planning treatment for older adults with lumbar spinal stenosis (LSS), an important—and often overlooked—contributor to chronic low back pain (CLBP) and the most common indication for spinal surgery in older adults.

PRIMARY CARE & HEALTH SERVICES SECTION

Original Research Article

511 Michael Von Korff, ScD, Judith A. Turner, PhD, Susan M. Shortreed, PhD, Kathleen Saunders, JD, Dori Rosenberg, PhD, MPH, Stephen Thielke, MD, MSPH, MA, and Linda LeResche, ScD

Timeliness of Care Planning upon Initiation of Chronic Opioid Therapy for Chronic Pain

We assessed the timeliness of chronic opioid therapy (COT) care planning among older chronic pain patients initiating long-term opioid use. Among COT initiators, 30% had a COT care plan documented in the electronic health record within 4 months after the index prescription, while 51% had a COT care plan within 12 months. Many who sustained regular opioid use at one year had not anticipated using opioids long-term, and these patients were less likely to have timely COT care plans.

PSYCHOLOGY, PSYCHIATRY, IMAGING & BRAIN NEUROSCIENCE SECTION

Original Research Article

521 Y elena Granovsky, PhD, Adi Miller-Barmak, BSc, Oren Goldstein, BSc, Elliot Sprecher, PhD, and David Yarnitsky, MD

CPM Test–Retest Reliability: “Standard” vs “Single Test-Stimulus” Protocols

The current study reports reliability of three heat-based CPM protocols in healthy volunteers. The best reliability was found for CPM induced by the novel single-test stimulation protocol.

continued.
The Perception of Being a Burden in Acute and Chronic Pain Patients Is Associated with Affirmation of Different Types of Suicidality

Controlling for age, gender, race, education, and two types of depression variables, hierarchical logistic regression was utilized to determine if self-perceived burden (SPB) could predict five different forms of suicidality in acute and chronic pain patients. In 19 of 20 analyses, SPB was associated with some form of suicidality.

Correlation of Subjective Effects with Systemic Opioid Exposure from Fixed-Dose Combinations of Oxycodone/Acetaminophen in Recreational Users of Prescription Drugs

In a randomized, double-blind, active- and placebo-controlled, 7-way crossover study, experienced recreational users of prescription opioids received single, intact and crushed, oral doses of immediate-release/extended-release oxycodone/acetaminophen tablets and immediate-release oxycodone/acetaminophen tablets, and placebo. At equal doses, whether intact or crushed, immediate-release/extended-release oxycodone/acetaminophen had less abuse potential than immediate-release oxycodone/acetaminophen, based on pharmacodynamic measures (positive subjective effects) and pharmacokinetic measures (peak concentration and time to peak concentration), with strong correlations between pharmacodynamic and pharmacokinetic outcomes.

Intrathecal Hydromorphone and Bupivacaine Combination Therapy for Post-Laminectomy Syndrome Optimized with Patient-Activated Bolus Device

Intrathecal therapy is a significant tool in the pain physician’s armamentarium to treat intractable low back pain. Sustainable analgesia from intrathecal treatment depends on multiple factors. The findings of this study suggest that possibly one of the factors to achieve good outcomes is initial concomitant use of a combination of hydromorphone and bupivacaine.

Local Injection of Methylcobalamin Combined with Lidocaine for Acute Herpetic Neuralgia

This clinical trial suggest that MeB12 has a significant analgesic effect on AHN. Local subcutaneous injection of MeB12 is more effective than systemic administration for relieving zoster-related pain with AHN. Timely treatment with MeB12 provides rapid relief from pain, improves QoL, and reduces the incidence of PHN.
Preperitoneal Continuous Infusion of Local Anesthetics: What Is the Impact on Surgical Wound Infections in Humans?

Continuous preperitoneal surgical wound infusion with local anesthetic is an effective and widely used analgesic technique, however, the impact of continuous infusion on wound healing, is still under debate. In our study, we aim to retrospectively evaluate the incidence of wound infection within 30 days after surgery in two groups, first group included patients fitted with a perilesional preperitoneal catheter with an infusion up to 48 hours, the second received only i.v. analgesia. In addition, a description of the temporal evolution of wound healing has been made using the evaluation forms completed in accordance with the Southampton Wound Assessment Scale.

Computer Tablet Distraction in Children Receiving an Injection

The purpose of this study is to examine the use of a tablet as a distraction tool for minimizing pain and distress in children receiving an injection. Forty-one children, 4 to 11 years old, receiving an injection were randomly assigned to a tablet distraction group or a control group. Self reported pain was assessed and pain and distress behaviors were observed. The use of a tablet as a distraction was not effective in decreasing pain and distress in children receiving an injection.

Iron Deficiency Anemia Is Associated with Menstrual Migraine: A Case–Control Study

This study aimed to determine if there is an association between iron deficiency (IDA) anemia and migraine, its subgroups, or tension-type headache. We demonstrated that IDA and menstrual migraine are significantly associated. Further research into this association will determine if the complex relationships between estrogen, iron metabolism, and dopamine dysfunction, and their effects on migraine, are underlying reasons for this association.

Gait Speeds Associated with Anxiety Responses to Pain in Osteoarthritis Patients

This clinical study investigated the associations among gait speeds, muscle strength, and pain-related psychological constructs in OA patients. We found that anxiety-related responses to pain were significantly associated by multiple regression analysis. These findings suggested evaluation of OA patients should be expand with pain-related psychological constructs.