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Table of Contents

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Editorial

1 Continued Success, Continued Gratitude

Mark P. Jensen


Critical Review

2 Interventions Available Over the Counter and Advice for Acute Low Back Pain: Systematic Review and Meta-Analysis

Christina Abdel Shaheed, Christopher G. Maher,
Kylie A. Williams, and Andrew J. McLachlan

Low back pain (LBP) is a common and costly condition, with up to 84% of adults experiencing an episode at one point in their lives. Use of over-the-counter (OTC) treatments is widespread. This systematic review evaluated evidence from randomized controlled trials to evaluate advice, bed rest, simple analgesics, heat application, and topical rubefacient. There is limited evidence that such options provide an immediate analgesic effect. Future research is needed to provide evidence to support rational use of OTC remedies and advice for people with acute LBP.

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ON THE COVER

Chronic pain is influenced by biological, psychological, social, and cultural factors. This work investigated potential roles for combinations of genetic and psychological factors as predictors of different exercise-induced shoulder pain phenotypes. See George et al, page 68.

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TREATMENT
ADVOCACY

Original Reports

16

Intense Pain Soon After Wrist Fracture Strongly Predicts Who Will Develop Complex Regional Pain Syndrome: Prospective Cohort Study

G. Lorimer Moseley, Robert D. Herbert, Timothy Parsons, Samantha Lucas, Jacobus J. Van Hilten, and Johan Marinus

Complex regional pain syndrome (CRPS) is a difficult complication of wrist fracture. Estimates of the incidence of CRPS after wrist fracture vary greatly, and it is difficult to identify who will develop CRPS. In this prospective cohort study, findings show that 1 in 26 patients develops CRPS within 4 months of nonsurgically managed wrist fracture. A pain score of ≥ 5 in the first week after fracture should be considered a “red flag” for CRPS.

24

Neuropathic Aspects of Persistent Postsurgical Pain: A French Multicenter Survey With a 6-Month Prospective Follow-Up

Christian Dualé, Lemlih Ouchchane, Pierre Schoeffler, the EDONIS Investigating Group, and Claude Dubray

Although postsurgical persistent pain (PSPP) is well documented for some types of surgery, there is a need for more precise information such as level of risk, intensity, and time course. This prospective observational study provides the incidence rate of neuropathic PSPP occurring within 6 months after 9 types of elective surgical procedures, highlighting the possible consequences of nerve aggression during some common surgeries. The study also identifies some preoperative dispositions to neuropathic PSPP.

25

Determination of the Effective Dose of Pregabalin on Human Experimental Pain Using the Sequential Up-Down Method

Waylan Wong and Mark S. Wallace

The intradermal capsaicin pain model has been used to evaluate analgesic effects of a variety of drugs. The authors examined the analgesic effects of pregabalin on intradermal capsaicin pain. Using a double-blind, placebo-controlled, crossover study, healthy adult male subjects were randomized to oral pregabalin or placebo on the first visit and returned later for the opposite treatment. Conclusions suggest that the intradermal capsaicin pain model can be used to efficiently derive the pregabalin median effective dose, but well-powered dose-response curve studies are needed for comparison and validation.

32 Minimally Clinically Significant Differences for Adolescents With Chronic Pain—Variability of ROC-Based Cut Points

Gerrit Hirschfeld, Julia Wager, Pia Schmidt, and Boris Zernikow

Assessing whether an individual patient has achieved clinically meaningful changes in pain intensity is a core aspect in evaluating pain treatments. This study sought to define minimally clinically significant differences for the numerical rating scale in adolescents with chronic pain. Data from 153 adolescents who completed an inpatient treatment were analyzed. Even when taking into account the variability of the method, cut points specific for children are needed, the report maintains.

40 Phenotypes and Predictors of Pain Following Traumatic Spinal Cord Injury: A Prospective Study

Nanna Brix Finnerup, Cecilia Norrbrink, Katarzyna Trok, Fredrik Piehl, Inger Lauge Johannesen, Jens Christian Sørensen, Troels Staehelin Jensen, and Lars Werhagen

Pain is a serious consequence of spinal cord injury. This research aimed to investigate the temporal aspects of different types of pain following traumatic spinal cord injury and to determine possible predictors of neuropathic pain. The authors report that early sensory hypersensitivity predicts later onset of below-level central neuropathic pain. This may help to identify patients at risk of developing neuropathic pain conditions after traumatic spinal cord injury. Information about onset of pain may help to identify different phenotypes in neuropathic pain conditions.

49 Facilitating Unequivocal and Durable Decisions in Workers' Compensation Patients Eligible for Elective Orthopedic Surgery

Emily Brede, Tom G. Mayer, Margareta Shea, Cristina Garcia, and Robert J. Gatchel

Timely intervention and recovery is beneficial to patients with chronic disabling occupational musculoskeletal disorders. This study introduces a surgical option process (SOP) to improve outcomes for patients with chronic disabling occupational musculoskeletal disorders who are undecided about elective orthopedic surgery. The addition of an SOP to interdisciplinary rehabilitation may resolve surgical indecision, improve outcomes, promote psychosocial recovery, and facilitate progression to maximum medical improvement.

59 Comparisons of Patient and Physician Assessment of Pain-Related Domains in Cancer Pain Classification: Results From a Large International Multicenter Study

Cinzia Brunelli, Stein Kaasa, Anne Kari Knudsen, Marianne Jensen Hjermstad, Alessandra Pigni, and Augusto Caraceni

Pain is still one of the most prevalent and feared symptoms among cancer patients, and suboptimal pain management is reported among many patients. In this study, physician clinical assessments were compared with patient-rated evaluations in the classification of cancer pain patients into groups with different pain levels, according to the presence of incident/breakthrough pain, neuropathic pain, and psychological distress. The findings indicate that patient assessment significantly contributes to the discrimination of cancer patients with different pain levels. The integration of patient self-assessment tools with more objective clinician assessments can improve the classification of cancer pain, the authors suggest.

68 Biopsychosocial Influence on Exercise-Induced Injury: Genetic and Psychological Combinations Are Predictive of Shoulder Pain Phenotypes

Steven Z. George, Jeffrey J. Parr, Margaret R. Wallace, Samuel S. Wu, Paul A. Borsa, Yunfeng Dai, and Roger B. Fillingim

Chronic pain is influenced by biological, psychological, social, and cultural factors. This work investigated potential roles for combinations of genetic and psychological factors as predictors of different exercise-induced shoulder pain phenotypes. The strongest statistical evidence was for interactions between the catechol-*O*-methyltransferase diplotype and pain catastrophizing (for upper extremity disability) or depressive symptoms (for pain duration). Other novel genetic and psychological combinations that may merit further investigation were also identified.

81 Comparison of Back Pain Prognostic Risk Stratification Item Sets

Michael Von Korff, Susan M. Shortreed, Kathleen W. Saunders, Linda LeResche, Jesse A. Berlin, Paul Stang, and Judith A. Turner

Despite increased treatments for back pain, improved outcomes have not been realized, suggesting that new approaches are needed. A recent trial compared risk-stratified back pain care (intervention) to nonstratified current best practice care (control). In the intervention arm, care was stratified by risk according to STarT Back screening tool scores. This study compared alternative prognostic item sets based on STarT Back to Chronic Pain Risk screeners. Differences were modest. Given comparable predictive validity, choice among prognostic item sets should be based on clinical relevance, number of items, ease of administration, and item simplicity.

90

The Association Between Negative Affect and Prescription Opioid Misuse in Patients With Chronic Pain: The Mediating Role of Opioid Craving

Marc O. Martel, Andrew J. Dolman, Robert R. Edwards, Robert N. Jamison, and Ajay D. Wasan

Past research shows that chronic pain patients experiencing high levels of negative affect (NA)—such as anxiety and depression—are at increased risk for prescription opioid misuse. This study examined factors underlying the association between NA and prescription opioid misuse among patients. Patients completed a questionnaire designed to assess prescription opioid misuse, and were also asked to report measures of pain intensity, NA, and opioid craving. Results revealed that opioid craving, but not pain intensity, mediated the association between NA and opioid misuse.

101

Acceptance and Commitment Therapy for Chronic Pain: Evidence of Mediation and Clinically Significant Change Following an Abbreviated Interdisciplinary Program of Rehabilitation

Kevin E. Vowles, Katie Witkiewitz, Gail Sowden, and Julie Ashworth

There is an emerging body of evidence regarding interdisciplinary acceptance and commitment therapy (ACT) in the rehabilitative treatment of chronic pain. This study evaluated the reliability and clinical significance of change following an open trial. Clinically significant change was indicated in just under half of participants. These results add to the growing body of evidence supporting interdisciplinary ACT for chronic pain, particularly with regard to the clinical significance of an abbreviated course of treatment.

114

Reviewer Acknowledgments