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SYSTEMATIC REVIEW OF THE EFFECTIVENESS OF CT-GUIDED, LUMBAR TRANSFORAMINAL INJECTION OF STEROIDS

A systematic review of published literature was completed to determine the effectiveness and safety of computerized tomography (CT) guided, lumbar transforaminal injection of steroids in the treatment of radicular pain.

The primary outcome for effectiveness, was the success rate for relief of pain. For safety, the radiation exposure involved, and the nature of complications were determined.

Much of the literature fails to provide evidence. Two studies reported decreases in mean or median pain scores but no other data. Two studies reported success rates of between 34% and 62% for achieving 50% relief of pain at between 1 and 6 months after treatment. CT-guided injections may involve greater radiation exposure than does fluoroscopy-guided injections and do not avoid catastrophic spinal cord injury.


The evidence-base for CT-guided lumbar transforaminal injection of steroids is meagre. This intervention is not more effective than fluoroscopy-guided injections and is not demonstrably safer.
HEALTH & WELLBEING OUTCOMES FOR DEFENDANTS ENTERING THE ALCOHOL-MERIT PROGRAM

The NSW Bureau of Crime Statistics and Research recently issued a report on the NSW Alcohol-MERIT program. Defendants reported significantly less psychological distress and dependence on alcohol after participating in the program. However, attributing these improvements to the Alcohol-MERIT program alone is not possible given the absence of a relevant comparison group.


WAS JAMES BOND AN ALCOHOLIC?

A recent offbeat study suggests agent 007 would have had the tremulous hands of a chronic alcoholic. The study says if statistics are any guide, James Bond would have died from alcohol- and tobacco-related diseases in his mid-fifties. And the paper darkly questions Bond’s supposed success as a womaniser. Given the vast quantities of drink he consumed before bedding a conquest, it says the evidence may not have stood up. The conclusions are made by a trio of British doctors who read all 14 of the original James Bond books authored by Ian Fleming, noting when and what the character drank.


ANY SUGGESTIONS?

The staff of HNE Health Libraries value your input. We appreciate any recommendations or suggestions and are happy to discuss them.

RECENT ARTICLES

NB. Articles in dark blue or bold text have Australian content


Miller, B. et al. (2014) C-reactive protein levels in schizophrenia: a review and meta-analysis. Clinical schizophrenia & related psychotic, 7(4), 223-230

Jashinsky, J. et al. (2014) Tracking suicide risk factors through Twitter in the US. Crisis, 35(3), 51-59


Journal of clinical psychology, 70(2) 2014 – Topic: Sexual feelings and behaviors in the therapeutic relationship


Advenier, A. et al. (2014) Laryngeal anomalies: pitfalls in adult forensic autopsies. Medicine, science and the law, 54(1), 1-7


McInnes, E. (2014) Madness in family law: mothers’ mental health in the Australian family law system. Psychiatry, psychology and law, 21(1), 78-91


Suisa, S. et al. (2013) Inhaled corticosteroids in COPD & risk of serious pneumonia. Thorax, 68(11), 1029-1036

NB. Articles listed in the newsletter aren’t necessarily available FREE. We’re just letting you know what’s available! If you’ve checked HNE Libraries’ eJournals portal (found under ‘eJournals’ in the Quick Links box on our website) and can’t find the article, contact your local HNE Library for further assistance. (Contact details—p.4) HNE Health Libraries will be able to supply most articles—but there may be charges.
RAPID DETERMINATION OF VERTEBRAL FAT FRACTION OVER A LARGE RANGE OF VERTEBRAL BODIES

Vertebral body fat fraction (FF) has been found to vary between lumbar vertebrae using magnetic resonance spectroscopy (MRS). We aim to more quickly assess a larger number of adjacent vertebrae using a single T2-weighted iterative decomposition of water and fat with echo asymmetry and least-squares estimation (IDEAL) sequence.

Five men had dual-energy X-ray absorptometry (DEXA) and 1.5-T MR scans performed. MRS was performed at L3, and a sagittal IDEAL sequence was also performed, resulting in separate fat-only and water-only readings from T1 to S2. For FF measurements there was limited intra-observer variation, with observers being on average within 3.4% of the pooled mean value. Similarly, there was good inter-observer agreement, with an average variation of 2.3%. All men showed a reduction in FF of 1.6-7% between L3 and S1. Otherwise, there was a trend of increasing FF moving inferiorly from T1 to S2. This averaged 2.7% per vertebra and may not have been dependent on MRS-measured FF at the L3 level. There was poor correlation between MRS-measured FF at L2-4 and bone mineral density measured using DEXA.

IDEAL measurements are generally reproducible between observers following a set protocol. There appears to be a gradient in FF moving from T1o S2, with S1 showing a consistent decrease. This variation may better describe overall marrow function than a single-vertebra reading.


WHEN I LOOK INTO MY BABY’S EYES… INFANT EMOTION RECOGNITION BY MOTHERS WITH BPD

Mothers with borderline personality disorder (BPD) have disturbed relationships with their infants, possibly associated with poor nonverbal cue perception. Individuals with BPD are poor at recognizing emotion in adults and tend to misattribute neutral (i.e., no emotion) as sad. This study extends previous research by examining how mothers with BPD perceive known (own) and unknown (control) infant stimuli depicting happy, sad, and neutral emotions. The sample consisted of 13 women diagnosed with BPD and 13 healthy control mothers. All participants completed clinical and parenting questionnaires and an infant emotion recognition task. Compared to control mothers, mothers with BPD were significantly poorer at infant emotion recognition overall, but especially neutral expressions which were misattributed most often as sad. Performance was not related to disturbed parenting but rather mothers’ age and illness duration. Neither the BPD nor control mothers showed enhanced accuracy for emotional displays of their own verses unknown infant-face images. Although the sample size was small, this study provides evidence that mothers with BPD negatively misinterpret neutral images, which may impact sensitive responding to infant emotional cues. These findings have implications for clinical practice and the development of remediation programs targeting emotion-perception disturbances in mothers with BPD.


CHANCE DISCOVERY BOOSTS HEART ATTACK HOPES

Australian scientists have stumbled upon a “simple” way to dramatically reduce the cause of a heart attack. The key to the treatment is for doctors to inject synthetic microparticles into the patient’s bloodstream within 24 hours of a heart attack. This reduces tissue damage caused by inflammatory white blood cells. The particles are made from the same material as dissolvable stitches.

The team believes the method halves post-heart attack damage and plan to conduct human clinical trials in two years. The treatment limits only the tissue damage caused after a heart attack. It cannot repair tissue damaged during the heart attack and has no effect on the disease that caused the heart attack.

Early research shows the microparticles reduce inflammatory damage and enhance tissue repair in a diverse range of scenarios, from multiple sclerosis to viral inflammation of the brain and kidney transplant.


RISKY DRINKING PATTERNS ARE BEING CONTINUED INTO PREGNANCY

Risky patterns of alcohol use prior to pregnancy increase the risk of alcohol-exposed pregnancies and subsequent adverse outcomes. It is important to understand how consumption changes once women become pregnant.

4577 women from the 1973–78 cohort of the Australian Longitudinal Study on Women’s Health were questioned. When reporting risky drinking patterns prior to pregnancy only 6% of women reported weekly drinking only, whereas 46% reported binge drinking only and 48% reported both. Women in both binge categories were more likely to have experienced financial stress, not been partnered, smoked, used drugs, been nulliparous, experienced a violent relationship, and were less educated. Most women (46%) continued these risky drinking patterns into pregnancy, with 40% reducing these behaviors, and 14% completely ceasing alcohol consumption. Once pregnant, women who binged only prior to pregnancy were more likely to continue (52%) rather than reduce drinking (29%). Of the combined drinking group 61% continued to binge and 47% continued weekly drinking. Compared with the combined drinking group, binge only drinkers prior to pregnancy were less likely to reduce rather than continue their drinking once pregnant.


RECENT COCHRANE REVIEWS


HNE LIBRARIES WEBSITE HAS A NEW LOOK

HNE Health Library's mission is to provide equitable access to the best available evidence to inform clinical and corporate decisions, and provide information services that support research, education and training for staff of HNELHD. This was central to the redesign of the Library's website which rolled out across the District late last year. Features of the new site include:

- A more approachable interface and enhanced usability
- More information at a glance and better integration of CIAP with other content on the site
- On-line membership and immediate access to resources
- At-a-glance access to health news and news from the Library
- Book your training sessions on-line
- Make recommendations for Library purchases on-line
- On-line feedback for your suggestions or comments about our service
- How-to area that answers many of your questions about accessing the Library's resources and services.

Access the Library site by visiting www.hnehealthlibraries.com.au

PARTICIPATORY WORKPLACE INTERVENTIONS CAN REDUCE SEDENTARY TIME FOR OFFICE WORKERS

Occupational sedentary behaviour is an important contributor to overall sedentary risk. There is limited evidence for effective workplace interventions to reduce occupational sedentary time and increase light activity during work hours. The purpose of this Australian randomized controlled trial was to determine if three novel participatory workplace interventions could reduce total sedentary time, sustained sedentary time (bouts >30 minutes), increase the frequency of breaks in sedentary time and promote light intensity activity and moderate/vigorous activity (MVPA) during work hours.

For all participants there was a significant reduction in sedentary time on work days and during work hours and a significant increase in number of breaks/sedentary hour on work days and during work hours; there was a concurrent significant increase in light activity during work hours and MVPA on work days.


SENSE AND SENSORBILITY: THE BOOK THAT LETS YOU FEEL YOUR PROTAGONIST’S PAIN

It's straight out of the pages of science fiction: a "wearable" book, which uses temperature controls and lighting to mimic the experiences of a story's protagonist. Dubbed "sensory fiction", the idea was developed by academics at MIT's media lab. An 'augmented' book senses the page a reader is on and portrays the scenery (ie. by changing ambient lighting) and a vest sets the mood by allowing readers to experience the protagonist's physiological emotions.

The vest is made of a series of straps which contain a "heartbeat and shiver simulator", a body compression system, temperature controls and sound. Changes in the protagonist's emotional or physical state trigger discrete feedback in the vest, whether by changing the heartbeat rate, creating constriction through air pressure bags, or causing localised temperature fluctuations.

According to the creators, "sensory fiction is about new ways of experiencing and creating stories." Traditionally, fiction creates and induces emotions and empathy through words and images. By using a combination of networked sensors and actuators, the sensory fiction author is provided with new means of conveying plot, mood and emotion while still allowing space for the reader's imagination. These tools can be wielded to create an immersive storytelling experience tailored to the reader.