HUNTER
PAIN CLINIC

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MARC'S MUSINGS

MARCH – MAY, 2012

1. **Comparison between CT Myelography and Radio Isotopes Sonography Findings in Whiplash Associated Disorders Suspected to be Caused by Traumatic Cerebrospinal Fluid Leak.** Spine, 2012 Ashizumi et al.

   This study looked at 35 patients after whiplash who had CSF hypovolemia type symptoms. They had CT myelography and radionuclide cisternography and there were no leaks found on CT myelography and 19 patients had leaks on radionuclide cisternography. Comparing between the two, it showed that the paraspinal accumulation was actually occurring within the CSF at nerve roots or cystic structures.

   ***Comment**: This means we can't use radionuclide cisternography to diagnose this condition. Only CT myelography is acceptable and the condition is probably much rarer than previously thought.*

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2. **Nucleoplasty is Effective in Reducing Both Mechanical and Radicular Low Back Pain.** Journal of Spine Spinal Disorders and Techniques**.** Vol 00, No 0 2011 Shabat et al.

   This paper is from Israel and is a prospective study of 87 patients followed for twelve months. Patients had to have radicular symptoms from a disc protrusion and more than 50% of normal disc height. They underwent nucleoplasty and, at the twelve month mark, 2/3 of patients (65%) had achieved a 50% or more reduction in their global pain.

   ***Comment**: Nucleoplasty may be an alternative to microdiscectomy for radicular symptoms from lumbar disc protrusion. However, this is not a randomised controlled trial, comparing this against microdiscectomy or against more conservative measures such as transforaminal epidural steroid injection so the results need to be taken with a grain of salt, as regards true underlying efficacy.*

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3. **The Analysis of Segmental Mobility with Different Lumbar Radiographs in Symptomatic Patients with Spondylolisthesis** European Spine Journal Vol 21 2012 pp256 – 261 Cabraja et al

   This paper is from University Hospital, Berlin, and looked at 100 patients. They found that the greatest amount of translation of one vertebra on another was comparing the flexed standing lumbar x-ray with a recumbent (lying down) lumbar x-ray.

   ***Comment**: This makes intuitive sense as, when recumbent, the muscles are relaxed, but when standing they are activated and so muscles will tend to splint the lumbar spine and decrease possible observable movement. Therefore, it is appropriate that if this is being used to pick which patients to undergo surgery, the views should be recumbent and flexed standing.*

4. A Comparison of Various Risk Screening Methods in Predicting Discharge from Opioid Treatment, Clinical Journal of Pain, Vol 28, NO 2, Feb 2012 pp 93 –Jones et al

This paper is from United States from Steve Passik's group. They looked at a number of patients and compared the screener and opioid assessment for patients with pain questionnaire, the pain medication questionnaire, the opioid risk tool and a clinical interview. The clinical interview turned out to be the best predictor of whether the patient subsequently had opioid aberrant behaviour.

***Comment**: Therefore, this study confirms that we should continue to use the clinical interview as the best indicator of risk.*

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5. Efficacy of Adjunctive Aripiprazole in Patients with Major Depressive Disorder who Showed Minimal Response to Initial Antidepressant Therapy. International Clinical Psychopharmacology 2012 May Vol 27 No 3 pp 125 – 33 Nelson et al

This paper is a multisite study from the United States that looked at 746 anti-depressant unresponsive depressed patients who then received placebo plus ongoing anti-depressant or Aripiprazole plus anti-depressant. This is, in fact, pooled data from three randomised controlled trials. They showed the numbers needed to treat for Aripiprazole add-on was 6 for a response to depression and 8 for remission of depression. The effect was rapid and clinically meaningful.

***Comment**: This pooled data from three RCTs really is the clincher to suggest that this is an appropriate treatment strategy to augment non-response in patients with depression prescribed anti-depressants. The dose of Aripiprazole used is usually low (≤ 10mg) and thus has a low side effect profile. Once remission has been achieved, one can subsequently consider reducing or eliminating the Aripiprazole. This is indeed a landmark study having significant offence on prescribing and treatment recommendations.*

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6. Patient/Physician Relationship in Patients with Chronic Low Back Pain as a Predictor of Outcomes after Rehabilitation, Journal of Behavioural Medicine 2012, April 4th Farin, E et al

This paper is from Frieberg, Germany and they looked at 688 low back pain patients who completed a multimodal rehabilitation treatment program and they showed that, after adjusting for a number of factors, the effect of the patient/physician relationship (satisfaction with care, trust in the physician, patient participation) was significantly associated with the level of pain, disability and quality of life at the six month mark.

***Comment:** This shows that one of the non-specific factors relates to the patient/physician relationship and how much, essentially, the patient buys into the concept of engaging in a rehabilitation process. There is still a role for physician charisma !*

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7. The Beneficial Effect of Glycopyrrolate in a Patient with Neuropathic Lower Extremity Pain, Pain Medicine Vol 13 No 3, 2012 pp 484-5 Schwartz and Quezado

This case report is of a patient who had neuropathic pain flares associated with sweating over the lower limb and application of topical Glycopyrrolate to the abnormal sweating area not only resolved the sweating, but also resolved the neuropathic pain. The topical treatment was able to be subsequently discontinued with no recurrence of pain.

***Comment**: This opens up an exciting avenue of treatment where we see neuropathic pain associated with abnormal sweating and the ability to switch off one which may be linked to the other. It certainly is a safe treatment when used topically.*

8. Management of Neuropathic Pain with Methylprednisolone at the Site of Nerve Injury, Pain Medicine Vol 13 No 3, 2012 pp 443-51 Eker et al

This study from Turkey is a randomised double blind comparative trial of lignocaine blocks vs. lignocaine with 80mg of depo-methylprednisolone proximal to the site of nerve injury in patients with neuropathic pain . They showed that the numerical rating scale for pain was 5.2 in the lignocaine only group and 2.0 in the lignocaine with prednisolone group which was statistically significant. It shows that adding this particular steroid is more efficacious than just the lignocaine alone in the treatment of neuropathic pain due to peripheral nerve damage.

***Comment**: It is good to see a randomised controlled trial in this area. Whilst the evidence base now shows that the local anaesthetic block should have steroid added to it, what we don't know is whether there are additional benefits at six or twelve months from a single injection or whether the block needs to be repeated and if there is additional benefit from doing so. Although we have no evidence, I would suggest that common sense would suggest that if there is no benefit from the block, there's little point in repeating it.*

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9. Switching Methadone: A Ten Year Experience of 345 Patients in an Acute Palliative Care Unit, Pain Medicine Vol 13 No 3, 2012 pp 399-405 Mercadante

This is from Prof. Mercadante who is very experienced in this area and he showed a 77% success rate in switching patients from opioid non-responsive doses to methadone using 1/5 the morphine equivalent dose split up as a tds dosing scheduled and then titrating up or down from there. It shows on a clinically empirical basis, that this is a highly effective strategy in the palliative care unit.

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10. Long Term Effect of Pulsed Radiofrequency Neurotomy on Chronic Cervical Radicular Pain Refractory to Repeated Transforaminal Epidraul Steroid Injections.. Pain Medicine Vol 13 No 3, 2012 pp 368 – 75 Choioi et al

This study looks at 21 patients who had stopped responding to transforaminal epidural steroid injections and underwent pulsed RF of the relevant dorsal root ganglion. 74% had a positive clinical outcome at twelve months and global happiness for treatment was a similar figure at 75%.

***Comment**: This is supportive evidence of the efficacy of this technique although it must be stated that this is a retrospective study and not a randomised controlled trial. However, it's certainly consonant that somewhere in the order of 2/3 of patients will respond positively to the procedure with 1/3 being unresponsive. This certainly is consonant with the experience in the Pain Clinic.*

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11. Lamotrigine for Trigeminal Neuralgia: Efficacy and Safety in Comparison with Carbamazepine, Journal of the Chinese Medical Association Vol 74, 2011 pp 243 – 49 Shaikh et al,

This study looked at 21 patients with trigeminal neuralgia who were randomised in cross-over to either Carbamazepine 1200mg per day or Lamotrigine 400mg per day. The results were that 90% of Carbamazepine patients derived some analgesic benefit vs. just 60% of Lamotrigine patients but, in those patients who did respond to Lamotrigine, there was a higher incidence of complete pain relief, 77% compared to Carbamazepine in which only 21% had complete pain relief. Thus it doesn't work as often, but when it does work, it works really well.

***Comment**: This is reasonable evidence for trialling Lamotrigine in patients who are unresponsive to Carbamazepine for trigeminal neuralgia and possibly can be considered an empirical approach to add Lamotrigine on to Carbamazepine partial responders.*

12. Pre-operative Magnetic Resonance Imaging in Type II Trigeminal Neuralgia, Journal of Neurosurgery Vol 113 2010, pp 511 – 15 Zacest et al

This study is from Australia's own Andrew Zacest, an Adelaide based Neurosurgeon, whilst he was working with Kim Burchiel in the United States. They looked at patients with spontaneous onset of constant facial pain and if they had evidence of neurovascular conflict on 3 Tesla MRI imaging, with 3D reconstruction, then they underwent a microvascular decompression procedure. What they found was that one in four patients did not benefit from this, but three out of four patients did. Typically, in patients who did benefit, what they found was that the episodic component of their pain was resolved with the operation and in half the cases, the constant pain resolved as well, but in half the cases, the constant pain continued.

***Comment**: This study opens up the possibility that some patients may be able to be helped with a microvascular decompression specifically where there is evidence of neurovascular conflict on 3D reconstruction MRI imaging. The results of such surgery are likely to be incomplete pain relief, but nevertheless may be considered in the appropriate overall multidisciplinary care of the facial pain patient.*

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13. Epidural Administration of Spinal Nerves with the Tumour Necrosis Factor Alpha Inhibitor, Etanercept, compared with Dexamethasone for Treatment of Sciatica in Patients with Lumbar Spinal Stenosis. Spine Vol 37, No 6, pp 439 – 44 Ohtori etal

This study from Chiba University in Japan looked at 80 patients in a prospective randomised trial of 3.3mg of Dexamethasone with lignocaine vs. 10mg of Etanercept with lignocaine in root sleeve injections for patients with radicular leg pain. There was a statistically and clinically significant improved reduction in leg pain in the Etanercept group at four weeks, with the Dexamethasone group going from a VAS of 7.5 to 5.2, and the Etanercept group going from a VAS of 7.9 to 3.5 (p=0.026).

***Comment**: This shows that over the short term, Etanercept is equivalent or more efficacious than Dexamethasone in root sleeve injection for radicular sciatica. This study in and of itself should not cause a wholesale change to Etanercept from Dexamethasone as the addition to local anaesthetic as more work needs to be done in this area. Critically, what is needed is a randomised clinical trial looking at Dexamethasone vs. the combination of Dexamethasone with Etanercept to see if significant additional benefit can be obtained and we need both twelve month data as well as the number of patients that are required to proceed to spinal surgery as part of the outcome assessment criteria. There is other work that would tend to suggest that Etanercept has a critical role to play in the treatment of symptoms of short duration but may have little role to play once the symptoms have been present for six months or more.*

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14. Cravings for Prescription Opioids in Patients with Chronic Pain: A Longitudinal Outcomes Trial, Journal of Pain Vol 13 No 2, 2012 pp146-54 Wasan et al

This paper looked at 62 patients prescribed opioids who were enrolled in a randomised controlled trial to improve prescription opioid medication compliance in the United States. They showed that even in patients who were at low risk for opioid misuse, there was still a sizeable minority (15%) who had identifiable cravings for taking the opioid that they did not act upon. This figure was much higher in those patients at high risk of opioid misuse as one would expect.

***Comment**: This shows that there is probably a continuum of symptoms where patients may have feelings of taking the next dose or looking forward to the next dose or craving without necessarily acting upon them and having any evidence of opioid misuse. Therefore, rather than a black and white concept, we should think of this as a continuum and that opioids can induce craving even when effectively producing analgesia.*

15. A Prospective Randomised FDA Trial Comparing Cortoss with PMMA for Vertebroplasty Spine Vol 37 No 7 2012 pp 544-550 Bae et al,

This FDA randomised controlled prospective trial examined 256 patients who had vertebroplasty performed for painful osteoporotic vertebral compression fractures who had pain of at least 5/10 and at least 30% disability on the Oswestry Disability Index. The incidence of serious device related adverse events was 4.3% in both groups. There was better maintenance or improvement in ODI at 24 months in the Cortoss group. There was significantly better pain relief at 3 months in the Cortoss group (both statistically significant). This demonstrates that Cortoss has better results for pain reduction at 3 months and for function at 24 months and should be the preferred injectate material for vertebroplasty.

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16. Predictive Factors for Post Herpetic Neuralgia Using Ordered Logistic Regression Analysis, Clinical Journal of Pain, Vol 00, No 00 2011 Kanbayashi et al

This paper from Kyoto looked at 73 patients with acute herpes zoster and factors predicting going on to develop post herpetic neuralgia were documented. It was found that age greater than 75 years had an odds ratio of 2.8 and the presence of deep pain had an odds ratio of 4.2.

Comment: *This is probably the best data to date that patients aged 75 or more or patients who present with deep pain, rather than superficial skin pain, should receive aggressive multimodal treatment of their acute zoster pain to try and prevent the development of a post herpetic neuralgia state. The presence of both of these factors would put the patient at extremely high risk of developing post herpetic neuralgia. I think it would be reasonable for general practitioners to use the presence of either of these two risk factors as criteria for referral to a Pain Clinic for further assessment and treatment.*