

PAIN MANAGEMENT

**PM01
SPINAL CORD STIMULATION FOR CHRONIC
REFRACTORY ANGINA**

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Spinal cord stimulation (SCS) involves the use of an epidurally placed, multiple electrode lead. Electrical stimulation between electrodes produces stimulation of the posterior spinal cord and can provide excellent pain relief and increased blood flow in a number of chronic limb pain conditions. Its efficacy has more recently been demonstrated in angina.

Chronic stable angina pectoris is a major cause of disability and suffering. The aims of treatment are to prevent MI and death (increase the quantity of life) and reduce the symptoms (improve the quality of life). In the non-acute condition, practitioners often struggle to manage angina because of a lack of understanding of modern concepts of pain. There is a widely held misconception that only revascularisation improves prognosis in chronic refractory angina- the term used to describe patients with stable angina that is treatment refractory. Over the last decade two pain services in New Zealand have been approached by cardiologists to provide spinal cord stimulation for such patients. This has been an intriguing experience! We have demonstrated that the placement of such leads in the lower cervical cord region provides excellent relief of angina. The technology is expensive (akin to the overall cost of CAVG surgery). We have demonstrated cost recoupment, by decreased hospitalisation, at approximately 16 months post procedure. Sadly, this therapy has not been embraced. Possible reasons for this will be discussed. The concept of electrically modifying the neuronal signals versus re-plumbing the blockage appears to be an anathema to cardiologists.

**PM02
RECURRENT RECTAL CANCER – STRATEGIES FOR
PAIN MANAGEMENT**

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Introduction Despite improvement in management of primary rectal cancer, local recurrence remains a significant problem. The aim was to address strategies for pain management in patients with recurrent rectal cancer.

Methods A literature search was performed using Medline, Embase, Ovid, and Cochrane database for studies between 1980 and 2005 assessing pain management of local recurrence of rectal cancer and the evidence was critically evaluated in the light of clinical experience in tertiary colorectal centres.

Results Nearly 50% of rectal cancer pelvic recurrences are local and are therefore potentially amenable to curative resection. Preoperative imaging with MRI and PET is essential for appropriate selection of patients for surgery and preoperative adjuvant therapy is important. Five year survival following resection ranges from 18%–58% though morbidity ranges from 21% to 82%. Palliative resection is usually inappropriate. Radiotherapy has an important role in the local control of irresectable local disease. Pain management of advanced pelvic disease, particularly with sacral nerve root invasion, remains difficult and often necessitates a multidisciplinary and multimodality approach. Aggressive surgical treatment favourably affects quality of life and is cost effective for irresectable local disease.

Discussion Surgery for local recurrence can result in significant survival with acceptable morbidity and improved quality of life in appropriately selected patients. Pain management of advanced pelvic recurrence is complex and should be multidisciplinary.

**PM03
TERMINAL CARE – PAIN RELIEF IN ADVANCED CANCER**

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Pain is the Fifth Vital Sign. Relief of pain should be achievable in up to 90% of cancer patients. Many patients however continue to suffer unnecessarily as a result of inadequate pain management. 75% of those with advanced malignancies experience severe pain caused directly by the disease and/or the treatment. Nociceptive pain is most responsive to intervention, the control of visceral and neuropathic pains is more difficult.

The mainstay of pain management in the terminally ill is opioid medication. Morphine remains the drug of first choice. Oxycodone, fentanyl and methadone are now available and alternative options. Though the oral route of administration is preferred, parenteral (particularly sub-cutaneous administration) opioid may be necessary during the final days of life. The phenomenon of 'wind-up' (the fading efficacy of an opioid) will be discussed as will the role of the anaesthetic agent ketamine in managing this complication of opioid therapy. The risk of iatrogenic addiction to medicinally prescribed opioid is miniscule. Analgesic adjuvant medications for neuropathic pain have a role as may spinal and intrathecal delivery systems of opioid medication.

In cases of intractable pain in the terminally ill deep sedation is a medically, legally and ethically acceptable management option.

**PM04
PERCUTANEOUS BALLOON RHIZOTOMY**

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Percutaneous balloon rhizotomy is a simple, safe and effective treatment for trigeminal neuralgia. The author will present a description of the technique and a discussion of problems and pitfalls based on personal experience. The relative advantages and disadvantages of the procedure in comparison with the other percutaneous techniques will also be discussed.

**PM05
STEREOTACTIC RADIOSURGERY FOR TRIGEMINAL
NEURALGIA**

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Stereotactic radiosurgery (SR) is effective in managing trigeminal neuralgia (TN). Over the past 15 years, over 20,000 patients (world wide) have undergone SR for TN. SR is an outpatient procedure with no associated mortality and minor morbidity (generally new facial paraesthesia: 6–16.7%). Initial success rates range from 77 to 95% (generally within 2 days of SR). The benefit then declines to 55.8%–70% (at 3 years). SR can be repeated for recurrent TN (68–85% benefit at 13.5–43 mths: 5 published reports; N = 111). Dunedin Public hospital holds the national contract for SR in New Zealand. Since 7.5.04, 6 patients with TN have been treated with SR in Dunedin (90 gray, 0.75 cm collimator, 7 table angles and 7 arcs). Details of this experience will be presented and discussed. A summary of the SR/TN literature will be given.

**PM06
MODERNISING OUR APPROACH TO POST-OPERATIVE PAIN**

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Pain is not a single entity, but many complex biological processes combined with psychosocial responses. Therapies therefore have to be multimodal. Single analgesics suit only a few. Although promoting positive thoughts and interactions with team members is important, this presentation will bias towards biological factors.

Reducing unnecessary postoperative pain suffering starts long beforehand in elective cases. Mounting evidence, of long-lasting ('chronic') pain following procedures needs accurately portraying to patients for informed consent. Denial of these facts causes later problems. Appropriate preparation reduces beliefs that ongoing pain means an error.

Once embarking on a procedure, measures prior to nociceptive surgical stimulus contribute to reduced postoperative pain, although robust evidence for pre-emptive analgesia in many situations remains elusive. But lack of evidence does not mean evidence against. A perfect single solution does not exist. Illustrating with pathophysiology of pain and of

nerve disturbance, pharmacology and genetic information, this presentation discusses rationalizing and combining common measures, why generous morphine doses don't always work, and why some results are less than expected.

1. Perkins MF, Kehlet H. Chronic Pain as an outcome of Surgery. *Anesthesiology*. 2000;93:1123-33.
2. Meyerson J, Thelin S, Gohrd T, Karlsten R. The incidence of chronic post-sternotomy pain after cardiac surgery – a prospective study. *Acta Anaesthesiol. Scand*. 2001;45:940-944.