

## **Journal Watch**

### **Anesthetic Procedures for Management of Cancer Pain Outcome and Complications of Epidural Analgesia in Patients with Chronic Cancer Pain**

**Presented by:** Sunita Broemling, R4 Anesthesia, During morning rounds at the Tertiary Palliative Care unit, Grey Nuns Hospital

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**Background:** Pain control may be very difficult with conventional, non-invasive techniques (opioids and adjuvant medications) and lead Palliative Care physicians to look for other options for their patients. Chronic cancer pain has been treated with indwelling epidural catheters, however the potential for complications is high, and has made this route much less appealing.

**Methods:** The charts of all patients receiving an epidural for chronic cancer pain during a three year interval (1993-6) were retrospectively reviewed. Intrathecal catheters were excluded. All catheters were inserted in the operating room under strict aseptic technique, some were tunneled for 10-30cm, the others were fixed in place with adhesive dressings. A few patients, who had a life expectancy >6 weeks, received subcutaneous injection ports placed under general anesthesia. Patients only received prophylactic antibiotics if they were having port implantation, otherwise their procedure was considered too short to require them. All patients were hospitalized for the placement of the catheters and the titration of medication, and usually discharged after 3-7 days. The dressings and antibacterial filters in the infusion pumps were changed every two weeks. Patients refrained from showers or baths to avoid soaking the dressing. Pain relief was rated by patients as either acceptable, and then their post-epidural opioid requirements were measured. Adequate pain relief was determined if the patients said their pain was acceptable while using >50% less opioid medication.

**Results:** Ninety-one patients received one hundred thirty-seven catheters for a total of 4326 catheter days. All but four of the patients had died by the time of final analysis. Median survival post placement of catheter was 38 days (range 1-1000 days). Seventy-two patients received a percutaneous port whereas nineteen were treated with an implanted subcutaneous port. Adequate pain relief was obtained in 76% of the 58 patients with nociceptive pain and in 73% of 33 patients with neuropathic pain. Technical complications and superficial infections occurred in 43% of patients; deep infections in 12 patients, 11 of whom developed epidural abscess.

**Conclusion:** Deep infection is a frequent complication of long-term epidural analgesia and is associated with a high morbidity and mortality, even when the

most rigorous protocols are used to prevent infection. Only cancer patients with a short life expectancy and no other analgesic options should consider being treated with epidural analgesia, and even then they must understand the related risks vs benefits.

### **Comments**

#### **Strengths:**

- Reasonable study design to assess the safety and outcome of patients with epidurals for chronic pain care.
- Done in a tertiary care hospital with large patient flow so applicable to our patient population.
- Used both opioid and local anesthetics through the catheter along with clonidine to improve the quality of the block, all things that would be appropriate under the circumstances.
- Accounts for all the different complications and follows the course of each patient with regard to dislodgement or replacement of catheters etc.

#### **Weaknesses:**

- Unable to place the epidural catheter complications in the context of their patients' complications from oral/IV therapy, because there are no matched controls.
- Patients still potentially on significant doses of opioid medication, and possibly having significant side effects from them.
- Doesn't use any rating scale to further quantify the patients' improvement in symptoms or overall well-being.

#### **Relevance to Palliative Care:**

This study illustrates that there would be very few indications to consider invasive therapy with an epidural in palliative care patients. Furthermore, the importance of operator dependence in the placement of epidural catheters with tunnelling etc, and the availability of OR time for these patients would be a further hindrance to setting up a program for palliative epidural catheters.