Thoracic Neuraxial Anesthesia for Lumbar Spine Decompressive Surgery

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INTRODUCTION

Epidural anesthesia has some key advantages, allowing anesthesiologists to safely care for patients with many comorbidities. We present a case whereby an elderly patient with severe coronary artery disease (CAD) successfully underwent thoracic neuraxial anesthesia for lumbar spine decompressive surgery.

CASE DESCRIPTION

A 91 year old diabetic male with a history of three-vessel CAD, which was medically managed, and myocardial infarction (MI) one month prior, presented for removal of synovial cyst and decompression, due to symptomatic lumbar stenosis at L4-L5.

In collaboration with the neurosurgeon, we planned for epidural anesthesia due to high risk obstructive CAD. A thoracic epidural catheter was placed at the T10-T11 level and anesthesia was maintained with epidural infusion 0.125% bupivacaine, low-dose propofol and fentanyl sedation.

The catheter was immediately removed upon arrival to recovery. The patient had an uneventful perioperative course.

DISCUSSION

Elderly patients with multiple comorbidities are having more elective surgeries than ever before. Hence, anesthesiologists must consider complex medical issues more when preparing an anesthetic plan.1

Despite lack of reduced mortality outcomes, carefully titrated epidural anesthesia:
• improves pulmonary function2
• reduces postoperative urinary retention5
• reduces intraoperative blood loss5
• allows for intraoperative motor extremity motor testing5
• decreases medical costs are reassuring2
• blunts the surgical stress response2
• provides superior analgesia5
• reduces the risk of perioperative MI2
• protects against thromboembolic complications2

Our patient was ambulatory. We chose epidural as opposed to spinal anesthesia for the following reasons: titratability, more favorable hemodynamic response, reduced opiate requirements and hospital length of stay3 as shown in randomized controlled trials comparing epidural opiate and non-opiate administration at the end of surgery.4

The surgical team consulted with the anesthesia care team days before the case and altered their surgical technique. This case illustrates the increasing need for flexibility and multidisciplinary perioperative planning in terms of anesthetic management of increasingly complex patients undergoing elective non-cardiac surgery.

CONCLUSION

Epidural anesthesia is a safe and reliable technique for complex surgical patients. Practitioners can confidently consider epidural anesthesia as a viable option to general and spinal anesthesia for lumbar spine procedures. Consultation with the surgical team can lead to a successful care plan.

References
1. Anesthesiology 2010; 23:726-31