**MRI Scans for Dense Motor Block Following Epidural Insertion: A Mountain Out of a Molehill?**

Background

Epidural catheters offer excellent analgesia for many procedures across a range of surgical specialties. However, they can have serious complications such as epidural haematoma or abscess, with devastating consequences for the patient. The Royal College of Anaesthetists’ 3rd National Audit Project (NAP3) estimated the incidence of such complications to be 0.85 per 100, 000 cases (1). Motor block is a particularly concerning feature which

may herald the onset of such a complication, therefore it is imperative that patients are followed up closely on the ward by trained staff to ensure the early detection and correct management of motor block.

Aim and objectives

Our aim was to evaluate the management of motor block following epidural insertion in our hospital using a single centre, retrospective case series.

Methods

173 epidurals were performed in our hospital during the 12 month period from January 2018 to January 2019. Epidural follow up charts for all these patients were reviewed. 16 were identified to have developed dense motor block. Factors that may have influenced the development of this block and its subsequent management were analysed. The RCOA document ‘*Best Practice in the management of epidural anaesthesia in the hospital setting*’ was used as the gold standard (2).

Main results

All 16 patients had undergone either vascular or colorectal surgery, which reflects the main utilisation of epidurals at our centre. Of these, nine had thoracic epidurals and seven had lumbar epidurals. All were cared for on the Post Anaesthesia Care Unit (PACU) or Intensive Care Unit post operatively, and all were reviewed by the Acute Pain Service (APS) on day one post op with input from a consultant anaesthetist. There was clear documentation of epidural infusion rate, inspection of the insertion site, although in some cases inspection was not possible because of blood or discharge around the site.

Of these 16 patients developing motor block, 11 were monitored as per Trust policy and improved after switching the epidural off.Five went on to have an MRI spine. There was documented discussion with a Consultant Anaesthetist and APS in all these cases. All the MRI scans during this period did not show any pathology

Conclusions

This audit demonstrated that in our institution, motor block following epidural insertion is picked up in a timely manner and managed appropriately with input from consultant staff. There were instances where anaesthetists struggled to convey the urgent need for MRI to radiology, as the radiologists felt the indication for a scan did not take precedence over other booked elective MRI scans, despite a consultant-consultant referral, causing unacceptable delays to scan. This led to subsequent discussions at directorate level, and a protocol is being put in place to prevent this occurring in the future.

References​

1. Cook TM, Counsell D, Wildsmith JAW. Major complications of central neuraxial block: report on the Third National Audit of The Royal College of Anaesthetists. British Journal of Anaesthesia 2009; 102(2):179-190.
2. Royal College of Anaesthetists. Best Practice in the management of Epidural Anaesthesia in the Hospital setting. November 2010.