BILATERAL ERECTOR SPINAE PLANE BLOCKS AS AN ALTERNATIVE TO EPIDURAL IN A PATIENT ON CLOPIDOGREL: A CASE REPORT

C.Prior¹, A.Knaggs², B.Bellew³

¹ Anaesthetic registrar, St.Mary's Hospital, Paddington, London

^{2,3} Consultant Anaesthetist, St.Mary's Hospital, Paddington, London

BACKGROUND

- Central neuraxial blockade (CNB) techniques have been shown to provide excellent analgesia and reduce mortality and morbidity following high-risk surgery.
- However, they may be contraindicated in patients who are coagulopathic or taking anticoagulant or antiplatelet medications.
- As described in this case, bilateral erector spinae plane block (ESPB) may provide a suitable alternative in certain patients.
- Post-operatively, an infusion of plain 0.125% levobupivacaine was commenced at 10mls/hour through each ESPC.
- Following laparotomy and exploration of the aneurysm sac, ligation of lumbar arteries and repair of inferior vena cava was required.
- Multiple blood products including 28 units of packed red cells were administered intra-operatively.
- On day 2 post-operatively, the patient was able to cough comfortably and was successfully extubated.
- The ESPC were removed on day 4 post-operatively.

CASE REPORT

- A 63-year-old female patient was diagnosed with persistent ilio-lumbar type II and III endoleaks with a 12cm aneurysm sac.
- This occurred following endovascular aneurysm repair for a ruptured infra-renal abdominal aortic aneurysm 3 years previously.
- On pre-operative assessment, she was found to be bedbound with multiple co-morbidities including type 2 diabetes, ischaemic heart disease, previous cadaveric renal transplant for end-stage renal failure, cerebrovascular disease and ankylosing spondylitis.
- She had suffered a non-ST-elevation myocardial infarction 6 months previously and required one year of dual antiplatelet therapy following placement of a drug-eluting stent to the left anterior descending coronary artery.
- A V-POSSUM score was calculated giving a morbidity and mortality risk of 98% and 58% respectively. Following an appropriate multi-disciplinary discussion with the patient, a laparotomy via a rooftop incision was planned for exploration and repair of the endoleak.
- Effective analgesia was considered imperative for reducing post-operative morbidity. However, epidural catheter placement was contra-indicated due to dual antiplatelet therapy including clopidogrel. Bilateral erector spinae plane catheter (ESPC) insertion was considered as an alternative analgesic technique.
- Following general anaesthesia, bilateral ESPC were placed with in-plane ultrasound guidance. An initial bolus of 20mls 0.25% levobupivacaine was given bilaterally.

DISCUSSION

- As well as providing excellent analgesia, the addition of CNB to general anaesthesia can reduce morbidity following high-risk surgery. Specifically, it has been shown to reduce the incidence of post-operative pneumonia by approximately 30%¹.
- However, due to the risk of epidural haematoma, CNB is contra-indicated in patients requiring some antiplatelet therapies including clopidogrel. Although peripheral nerve block (PNB) is also relatively contraindicated in such patients, the potential benefit of reduced post-operative morbidity in high-risk patients may outweigh the risk of bleeding associated with PNB.
- This risk can be mitigated if PNB is performed by an experienced operator, with the use of ultrasound and colour Doppler to facilitate safe needle trajectory².
- ESPB may be classified as a PNB and has been shown to be efficacious for abdominal surgery³.
- As ESPB is a relatively new technique, the risk of haemorrhagic complications is not described in current guidelines^{4,5}.
- We suggest that ESPC may provide a safer alternative to epidurals in patients on clopidogrel.
- However, further work is needed to evaluate the risk of haemorrhagic complications in ESPB as well as other PNBs. Subsequent guidelines will help in assessing the risk/benefit balance in high-risk patients.

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