BILATERAL SERRATUS ANTERIOR PLANE CATHETERS IN A POLYTRAUMA PATIENT

A. Tay¹, I. Sinha², B. Bellew¹.

¹St Mary's Hospital- Imperial College Healthcare NHS Trust, Department of Anaesthesia, London, United Kingdom.

²St Mary's Hospital- Imperial College Healthcare NHS Trust, Department of Trauma and Orthopaedics, London, United Kingdom.

Rib fracture pain is severe and traditionally treated with systemic analgesics or epidural block. Opiate analgesics and continuous epidural anaesthesia are commonly associated with side effects. Coagulation abnormalities may prevent catheter insertion. Ultrasound-guided (USG) Serratus Anterior Plane Block (SAPB) and catheter (SAPC) has been shown to provide good analgesia for acute post-thoracotomy pain^{1,2}.

A 50-year-old man fell from a height of 2 stories. He sustained multiple rib fractures bilaterally, with a flail segment on the right and bilateral pneumothoraces. Other injuries included unstable pelvic fractures, right renal laceration and right forearm fractures. Severe rib fracture pain was inadequately controlled by opiates. He was unable to be positioned for an epidural due to his unstable pelvic fractures.

Bilateral USG SAPB were undertaken with 40 mls of 0.125% bupivacaine (1:400,000 Adrenaline) per side with good effect in the emergency department. Bilateral SAPC were sited and each connected to a continuous infusion of 0.125% bupivacaine at a rate of 10ml/hr. He was prescribed paracetamol and oromorph for his other injuries.

He was comfortable on this infusion until the next day when he required 1 bolus of 20mls of 0.125% bupivacaine on the right and an increase in infusion rate to 15ml/hr on the right and 12ml/hr on the left. On the second post-injury day, he had a further bolus of 10mls of 0.125% bupivacaine with good effect. Bilateral SAPC infusion maybe a useful alternative to epidural infusion in patients with bilateral rib fractures that are unable to be positioned for epidural catheter insertion.

References:

1. Blanco R, Parras T, McDonnell JG, Prats-Galino A. Serratus plane block: a novel ultrasound-guided thoracic wall nerve block. *Anaesthesia* 2013; 68:1107-1113.
2. Khalil AE, Abdallah NM, Bashandy GM, Kaddah TAH. Ultrasound-Guided Serratus Anterior Plane Block Versus Thoracic Epidural Analgesia for Thoracotomy Pain. *J. Cardiothorac Vasc Anesth* 2017;31:152-158.