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# Erector spinae plane block for rescue analgesia following caesarean delivery

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Dear Editor,

Pain after caesarean section is still a common and important source of patient dissatisfaction in many obstetric centres. With intrathecal morphine combined with multimodal analgesia, approximately 5–10% of patients experience severe breakthrough pain after caesarean delivery that is difficult to manage [1]. Planned erector spinae plane (ESP) block can result in excellent postoperative analgesia associated with high patient satisfaction after caesarean delivery [2, 3]. However, the role of this block for rescue analgesia following caesarean section has never been described. We present a case in which bilateral ESP block was used as rescue analgesia in a woman who had severe postoperative pain following elective caesarean delivery under spinal anaesthesia combined with multimodal analgesia. The patient described in this case gave written consent for publication of this observation.

A 23-year-old primigravida woman, body mass index of 32 kg $m^{-2}$, underwent an uncomplicated caesarean delivery under spinal anaesthesia which consisted of 0.5% hyperbaric bupivacaine 10 mg, and morphine 200 µg. Surgery was uncomplicated and lasted 55 min. She received paracetamol 1 g and ketoprofen 100 mg at the end of the surgery. In the Post-Anaesthesia Care Unit (PACU), when her spinal anaesthesia block had resolved, the patient experienced pain rated 9/10 on the numerical rating scale (NRS) over the surgical incision. She received fentanyl 50 µg and morphine 5 mg intravenously, which resulted in a minimal decrease in her pain score to 8 on the NRS. The patient was offered and agreed to receive a bilateral ESP block. Routine monitoring with ECG, non-invasive blood pressure, and oxygen saturation were applied prior to performing the blocks.

Bilateral ESP block was performed in a sterile manner under ultrasound guidance in the lateral decubitus position. A high frequency linear array transducer (9–12 MHz) was placed 3 cm from the T10 spinous process to visualize the corresponding transverse process. The patient's skin was anaesthetized with 2 mL of 2% lidocaine, and then a 22-gauge 10-cm needle (Pajunk Sonoplex Stim, Geisingen, Germany) was inserted into the skin and advanced gently using an in-plane cranial-to-caudal approach to contact the posterior aspect of the transverse process. After confirmation of the erector spinae plane by visible fluid spread with 2 mL of saline, 15 mL of bupivacaine 0.25% with dexamethasone 2 mg was injected in each side. Within 20 min, the patient's pain decreased from 8 to 1 on the NRS and there was a decreased sensation to pinprick over the anterior abdomen from the T8 to L1 dermatomes. Pain relief lasted 12 h before she requested further analgesia.

Transversus abdominis plane (TAP) block has been used successfully to manage post-caesarean breakthrough pain [1]. Being challenging to perform in obese patients and technically more demanding as surgical dressing, tissue oedema, and intra-abdominal air may hamper the ultrasonographic visualisation of the TAP, ESP block offers

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numerous advantages over TAP block. ESP block can be performed quickly and simply with easily identified ultrasound landmarks.

In our view, ESP block may be suited as a rescue analgesic technique in the setting of caesarean section for those women who have severe breakthrough pain after offset of spinal anaesthesia. Nevertheless, future studies are required to provide a better outline of the utility of ESP block as a rescue option in the caesarean delivery setting.

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