

An alternative and novel usage for ultrasound-guided erector spinae plane block: Extracorporeal shock wave lithotripsy in a paediatric patient

Sir,

Erector spinae plane block is a novel paraspinal interfascial plane block.^[1] It has been performed for several indications, and its usage for paediatric patients have been increased recently.^[2,3] It may be used safely especially in paediatric analgesia management instead of central neuroaxial techniques because of its distance to the important anatomical structures.^[2,3] Herein, we would like to share our experience using erector spinae plane block (ESPB) for management of interventional pain during extracorporeal shock wave lithotripsy (ESWL) in a 2-year-old paediatric patient.

Written informed consent for the procedure and future publishing were obtained from parents of patient. Two-year-old boy was scheduled to undergo ESWL due to multiple renal stones. The patient was taken to the ESWL unit. Midazolam ($0.1 \text{ mg}\cdot\text{kg}^{-1}$) and propofol ($1 \text{ mg}\cdot\text{kg}^{-1}$) was administered IV for sedation. The patient was placed in the right lateral decubitus position. Under aseptic conditions; ultrasound-guided ESPB was performed from the level of the Th10 with a high frequency, sterile sheath covered, 12 MHz linear US probe. Following the visualisation of the erector spinae muscle above the transverse process, 22G, 50 mm block needle was inserted in a cranial-caudal direction using the in-plane technique into the deep fascia. 6 ml of 0.25% bupivacaine was injected into the interfascial area^[2] [Figure 1]. ESWL was commenced 10 minutes after the block. There were no changes in arterial pressure, heart rate, respiratory rate, and SpO₂ during ESWL. No additional analgesic drug or sedation was performed to the patient during the procedure. The patient was immobile during ESWL. Patient was comfortable at the postoperative period and started to walk 1 hour after the ESWL.

Anaesthesia and analgesia management is a very important issue during ESWL. ESWL is a daycare procedure, patients usually are discharged in the same day. Effective opioid-free techniques may be

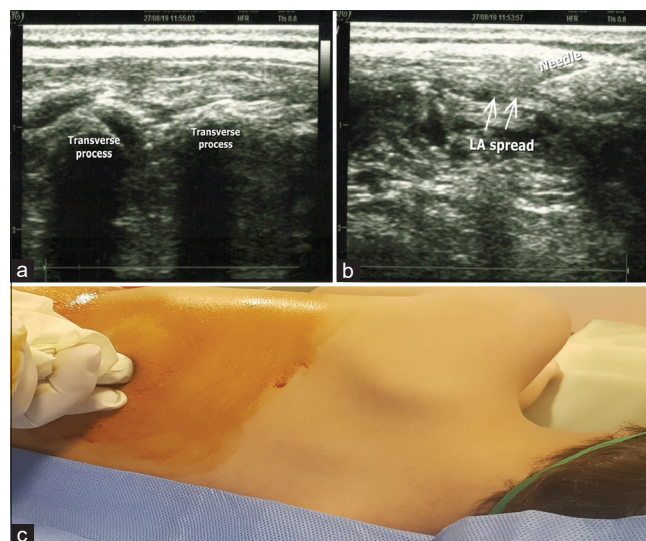


Figure 1: (a) Sonographic anatomy of the block (b) Needle direction and spread of local anaesthetic. LA indicates local anaesthetic (c) Patient position and probe localisation during ESPB performing

used for post-procedural pain management.^[4] The patient should be immobile during the procedure, and the sedation should be light for protection of the spontaneous respiration. So, regimens such as opioid-free anaesthesia may be preferred. QLB block may be performed in paediatric patients for abdominal procedures like ESWL analgesia and provides at Th7-L1 dermatomes.^[4] However, there have been some reports of complications related to QLB. QLB is administered in closer proximity to the intra-abdominal solid organs such as liver and kidney. Ahiskalioglu *et al.* reported the visualisation of hepatomegaly during the QLB block.^[5] If this block is performed in less skilled hands, a number of complications such as solid organ injury may occur during block application.

ESPB is a novel block defined for use in both acute and chronic pain and sometimes as the main anaesthesia method in both paediatric and adult patients.^[1-3] ESPB is performed distant to solid organs and vascular structures. The transverse process is a natural anatomical barrier in front of the needle and visualisation is simpler under ultrasound guidance, so it may be performed safely.^[1,2]

To conclude, ESPB may provide effective interventional analgesia during paediatric ESWL safely for opioid-free analgesia treatment.

Declaration of patient consent

The authors certify that they have obtained all appropriate parent consent forms. In the form the parent(s) has/have given his/her/their consent

for his/her/their child's images and other clinical information to be reported in the journal. The parents understand that the name and initials of their child will not be published and due efforts will be made to conceal the identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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