

## An unusual complication of caudal anaesthesia

Sir,

Caudal anaesthesia is an effective and the most frequently used method of producing perioperative analgesia in paediatric patients. It can be used as a single-dose technique or continuous infusion. We report a rare complication of caudal block in a 5-year-old ASA-I child weighing 15 kg scheduled for bilateral herniotomy as an out-patient procedure. In the operating room, intravenous cannulation was established with a 22 G canula after standard baseline monitoring. After routine induction and securing the airway with a size "2" Proseal LMA, caudal block was given in the left lateral position with 1 mL/kg of 0.25% bupivacaine and clonidine 1 µg/kg. Anaesthesia was maintained with O<sub>2</sub>:N<sub>2</sub>O (1:1) mixture along with sevoflurane 2%. The patient was maintained on spontaneous ventilation. Right side herniotomy was done first, and was uneventful. On skin incision on the left side, the child developed tachycardia and tachypnoea. After ruling out other causes of tachycardia, like fluid deficit, improper LMA positioning, increased etCO<sub>2</sub> and light plane of anaesthesia, we administered Fentanyl 1 µg/kg to which the patient responded and tachycardia settled down. The child remained haemodynamically stable throughout surgery, which lasted for 40 min. Post-operatively, we monitored the child every 30 min as per the routine protocol followed in our institution. Regression time for sensory and motor blockade were recorded in the post anaesthesia care unit. Just after surgery, the child had motor blockade of Bromage grade 0 in the left leg with fully intact sensations, while at this time the right leg had no sensations and motor blockade was Bromage grade 3. The remainder of the parameters, like haemodynamics, sedation and post-operative nausea, vomiting were normal. The patient was operated on a day care basis but had to be admitted overnight because of residual block. Six hours post-operatively, the child had motor blockade of Bromage grade 1, and the power was 4/5. Even now, he was not able to stand without support but passed urine by this time. The patient regained full motor power in the affected limb and Bromage grade 0, nine h after caudal block.

Unilateral blocks are rare with caudal epidural anaesthesia. As per the literature search, one of the causes of unilateral block is misdirected needle. Among these, injection into the fourth sacral foramen is perhaps the most common cause of unilateral limited block.<sup>[1]</sup> Injection lateral to the coccyx and towards the anterior sacral wall results in absent or patchy block. In either case, injection will be easier, but absent or patchy block will be present. The other reason might be presence of congenital fibrous/connective tissue bands in the epidural space.<sup>[2]</sup> Tachycardia and tachypnoea after skin incision on the left side also favours this. In this case, as there was no resistance felt during the drug injection, it might be due to any of the above-mentioned causes, but diagnosis could not be confirmed as the patient did not come for follow-up. Unilateral caudal block can also result from too rapid injection of local anaesthetic (LA).<sup>[3]</sup> Ideally, the LA should be injected slowly over 2 min, which we routinely follow. In our case, we could not relate this reason to this unusual manifestation because the rate of injection was not rapid. Addition of clonidine could not be the reason because we routinely add clonidine at a dose of 1–2 µg/kg and, moreover, prolongation or residual block was unilateral. We wish to share our experience in view of the paucity of the literature.

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