

Bilateral continuous paravertebral block in a child with Wilms' tumor associated with coagulopathy**Dear Editor:**

The surgery in the removal of a Wilms' tumor in pediatric age is a challenge for the anesthesiologist. The preoperative chemotherapy, hypertension, big abdominal mass, bleeding and extended tumor into the inferior vena cava are the major intraoperative considerations. It has been reported that 10% of childhood Wilms' tumors have acquired coagulopathy. Coagulation profile recovers generally after the chemotherapy or the removal of tumor.¹ Cases with coagulopathy need special attention for per- and post-operative pain management with central blocks. We present the management of per- and post-operative analgesia provided with bilateral paravertebral block (BPB) in a case of giant Wilms' tumor with associated coagulopathy.

A 4-year-old boy weighing 15-kg, with left side Wilms' tumor, renal vein thrombosis and lung metastases was admitted for surgery. Preoperatively, his coagulation screen showed long APTT (51 s). He had no clinical sign of a bleeding diathesis. The surgery was planned to approach the mass with midline incision. After intubation, the patient was moved into lateral decubitus position. The high frequency linear probe of ultrasound was placed longitudinally and paramedially on the paravertebral area at the level of T9-10. Processus transversalis, intercostal ligaments and pleura with seashore sign and paravertebral area was displayed. A 20 G Tuohy needle was inserted to the paravertebral area from lateral to medial direction in plain method. After the negative aspiration, first dose of 6 ml 0.25% bupivacaine, was given and catheter was inserted into both sides. Hemodynamic parameters were stable during surgery; no additional systemic analgesic was administered except fentanyl given in the beginning of the surgery. A 3ml 0.25% bupivacaine doses was added for each side at 4th hour of surgery. The procedure lasted 7-hours including clamping of vena cava for 20-minutes and diaphragm repair. The patient was transferred to the ICU postoperatively and extubated after 1-hour. Doses of 3ml 0.125% bupivacaine infusion for each side were continued for 48-hours. Postoperative pain was assessed by FLACC pain scoring over a range of 0-10 (score ≥ 4 requires analgesia). The patient did not need any analgesic throughout 48-hours

except one dose of paracetamol administered post-extubation. Neither nausea nor vomiting was observed and hemodynamic parameters were stable postoperatively.

The publications stating that paravertebral block (PB) provides equal or better analgesia than epidural block, and improved respiratory function and less adverse effects (*i.e.* hypotension, urinary retention, motor block) than neuroaxial blocks, are increasing in number. Contraindications (*i.e.* coagulation disorders) are less in PB. Especially, ultrasound guided BPB seems to involve less risk for hematoma. The midline surgery needs bilateral application of paravertebral block that has risks of hypotension, pneumothorax and local anesthetic toxicity.^{2,3} These disadvantages have been reported rarely.⁴ In our case, we obtained good intraoperative and postoperative analgesia with BPB without concern of coagulation problems and epidural contraindication. APTT profile returned to normal values after removal of the mass; and was normal after 2-days of surgery. Despite the damage to the diaphragm, it was possible to extubate the patient very shortly after surgery owing to the good respiratory function provided by BPB.

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