INTRODUCTION

Postoperative pain after kidney transplant can be significant requiring regional analgesia techniques for optimal pain control. Ultrasound guided quadratus lumborum blocks can improve postoperative pain control, and can cover incisions above and below the umbilicus.

METHODS

We performed a retrospective chart review and identified 13 patients (4–18 years, mean 10.9 years) who underwent kidney transplants. Nine children had quadratus lumborum single injection blocks (QLB group) and 4 children (MM group) had medical management. Postoperative pain scores and consumption of analgesics were compared until the end of postoperative day 2.

RESULTS

Demographic data and surgical characteristics are presented in Table 1. The blocks were performed under general anesthesia, using ultrasound, before surgery started. The local anesthetic used was ropivacaine 0.2% (4 patients) and 0.5% (5 patients); a mean of 2.7 (+/- 0.8) mg/kg for bilateral blocks (6 patients) and a mean of 1.8 (+/- 0.6) mg/kg for unilateral blocks (3 patients). Patients in QLB group received intravenous heparin 2.5 hours (+/- 45 minutes) after the blocks were performed. There was no significant difference between the two groups for intraoperative opioid administration (see Table 2).

Postoperative pain scores and consumption of analgesics were compared and are presented in Table 3. The QLB group had significantly lower pain scores on POD 0. Hydromorphone consumption (mcg/kg/hr) was not significantly different, but shorter for QLB on POD1 and POD 2. A few days after surgery one patient in QLB group developed back pain and bruises over lumbar paraspinal muscles that resolved without intervention.

CONCLUSION

Quadratus lumborum blocks provided adequate postoperative analgesia for our patients. Transversus abdominis plane (TAP) blocks can be effective for pain control but duration of analgesia and the spread of local anesthetic can be limited (1). In our study, QLB decreased postoperative hydromorphone consumption, but prospective studies are needed to confirm the efficacy and safety of QLB for this population. The duration of analgesia after QLB can be longer and the sensory block more extended; these make these blocks appropriate for extended incisions performed for some kidney recipients. The QLB block should be done preoperatively to avoid retroperitoneal hematoma formation after heparin administration.

REFERENCE