

**Ultrasound-guided Quadratus Lumborum Block versus
Caudal Block for Pain relief in Children undergoing
Lower Abdominal Surgeries**

By

Doaa Lotfy Abd El Baky
M.B.B.Ch., M.Sc.

A THESIS

Submitted for partial fulfillment

Of

The requirements of the MD degree in Anesthesia

Department of Anesthesia, Intensive Care & Pain Management

Faculty of Medicine

Fayoum University

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Abstract

Ultrasound-guided Quadratus Lumborum block versus caudal block for pain relief in children undergoing lower abdominal surgeries

Doaa Lotfy Abd El Baky , Anesthesiology department, Fayoum university

Background: The quadratus lumborum (QL) block is a recently introduced abdominal truncal block, used for somatic and visceral analgesia in abdomen surgeries. **Aim of the work:** To compare between caudal block and ultrasound guided quadratus lumborum block as regard degree of pain relief, accuracy of block, effect on hemodynamic stability and incidence of complications in lower abdominal surgeries . **Patients and methods:** Fifty two patients ranging from one to seven years of age of both genders, scheduled for unilateral lower abdominal surgery were randomized into 2 study groups. Group **QL** — Unilateral quadratus lumborum block (n= 26) Group **C** — Caudal block (n= 26). Inhalational induction of general anesthesia (GA) was performed . **Group C:** Children received caudal block with 1 ml/kg of bupivacaine 0.25%. **Group QL:** Ultrasound guided quadratus lumborum block was done. The local anesthetic was injected as a bolus of 0.5 ml/Kg bupivacaine 0.25%. Quality of analgesia was assessed using a FLACC scale at 30 minutes and at 1, 2, 4, 6, 12, and 24 hours postoperatively .Hemodynamic parameters (heart rate, systolic and diastolic arterial blood pressure) were recorded preoperatively and every 15 min till the end of surgery. Incidence of complications in the form of hemodynamic instability, injury to the underlying structures (injury to the liver or a viscous), and hematoma formation as recorded under ultrasound guidance, and signs of local anesthetics toxicity The general satisfaction of parents were also recorded . **Results:** As regards hemodynamic parameters ,there was no statistically significant difference between the two groups (p value > 0.05) ,there was no statistically difference in the severity of postoperative pain between both study groups up to 24 hours postoperatively. The time till first request for analgesia postoperatively was statistically longer in the QL group compared to C group. Parents of the QL block group showed a higher level of satisfaction than the caudal block group. No intraoperative complications were detected **Conclusion:** the QL block provided longer and more effective postoperative analgesia compared with the caudal block.