CASE REPORT: CONTINUOUS BILATERAL QUADRATUS LUMBORUM BLOCKS IN AN INFANT

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Background

Quadratus lumborum block (QLB) is becoming popular in paediatric anaesthesia but few mentions of continuous QLB exist.^{1,2} Our patient was born at week 36, with bladder exstrophy. He had surgery first at birth, and 2 months later for duodenal stenosis. Now, at 6 months, weighing 6.5 kg he had surgery again to close the bladder and the abdominal wall, and bilateral pelvic osteotomies to make it possible. Postoperatively he was confined to the supine position with the legs elevated in a stretching device to release tension in the surgical area. Because of vertebral malformations (upper thorax and lower part of sacrum) any central block was deemed contraindicated. Peroperatively large doses of fentanyl was given. Postoperatively he was kept intubated in PICU until stable analgesia and respiration, which turned out to be difficult to achieve. (Table 1)

Methods

At day 2 I performed bilateral QLB blocks with catheters. The catheters were secured with Dermabond® mini, and Tegaderm™. For practical reasons I did a transmuscular QLB on the right side and a QLB type 2 on the left side. (Fig 1&2) Because of surgical dressings both injections were done from medial aiming laterally. Starting doses were 2.5 ml of levobupivacaine (1.6 mg/ml) on each side. Thereafter 3 ml levobupivacaine (0.625 mg/ml) on each side every 4th hour.

Results

The patient became calmer and other analgesics could be withdrawn step by step. Catheters were withdrawn after 9 days. No side effects were noted. (Table 1)

Conclusions

Continuous QLB seems applicable also in infants.

Fig 1&2: QLB block type 2 on left side. Before and after injection.

	Day 0 = surgery	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12
Opioids µg/kg/h	30 (morphine)	35-40	40-35	35	30	20	15	10 (ketobemidone)	→	→	→	→	
Paracetamol	7.5 mg/kg every 6 th hour	→	→	→	→	→	→	→	→	→	→	→	→
α2-agonists	Dexmedetomidine 1.4 µg/kg/h	→	Clonidine 2.0 µg/kg/h	→	→	→	→	→	Clonidine 15 µg 6 times daily	→	→	→	→
Ketamine mg/kg/h		0.2	→	→	→	0.1	→	→	0				
NSAID			Ketorolac iv	→	→	→	→	→	Ibuprofen oral	→	→	→	→
Midazolam mg/kg/h		0.1	0.2	0.15	0.1	0							
Nerve block			QLB	3 ml every 4 th hour, bilateral						3 ml every 6 th hour, bilateral	3 ml every 8 th hour, bilateral	3 ml every 12 th hour, bilateral	3 ml once bilateral
Propofol mg/kg/h	2	→	→	→	→	0							
Comments	Pain, ventilator asynchrony, muscle relaxation, boluses			More at ease. Less boluses	Can be handled without protests, wakes up calmly	Extubation			Leaves PICU for paediatric surgical ward				Catheters extracted