131 ERECTOR SPINAE BLOCK FOR PERIOPERATIVE PAIN MANAGEMENT IN CHILDREN UNDERGOING THORACOTOMY

¹E Mossad*, ²E Chung. ¹Texas Children's Hospital, Houston, USA; ²Cook Children's Hospital, Fort Worth, USA

10.1136/rapm-2021-ESRA.131

Background and Aims Thoracotomy for pediatric cardiac surgery can be associated with significant pain. Regional anesthesia techniques such as epidurals and paravertebral blocks can reduce the pain of thoracotomy but can also be associated with significant risk.

The erector spinae plane (ESP) block targets the dorsal and ventral rami of spinal nerve roots and has been used extensively for a host of adult surgical procedures. The ESP block is a less invasive option due to the avoidance of the neuraxial and paravertebral spaces.

Methods We present a case series in which the ESP block was used successfully in 25 pediatric patients undergoing thoracotomy for cardiac surgery. We compare the ESP to other modalities of perioperative pain management in 29 pediatric patients.

Results Patients presented for coarctation repair (5) and vascular ring division (20 patients). The patients ranged in age from 8 months to 17 years of age. The ESP blocks were performed after induction of general anesthesia under ultrasound guidance. Intraoperative opioid use was decreased compared to the usual doses used with other blocks or pain management modalities, and post-operative opioid use in the first 24 hours after surgery ranged from 0.05 to 0.5 milligrams per kilogram, significantly lower than other modalities. Postoperative FLACC pain scores were significantly lower in the ESP group in the first 48 hours.

Abstract 131 Figure 1

Conclusions The erector spinae plane block can potentially lead to decreased intraoperative and post-operative opioid use for pediatric patients undergoing thoracotomy for cardiac surgery.

132 SINGLE SHOT ERECTOR SPINAE PLANE BLOCK IN NEWBORNS UNDERGOING OPEN TYPE C ESOPHAGEAL ATRESIA REPAIR

O Rahil*. Clinique Universitaire de Chirurgie Pédiatrique Ali Bouzid, Algiers, Algeria

10.1136/rapm-2021-ESRA.132

Background and Aims Erector spinae plane block (ESPB) is a new paraspinal block that provides périopérative pain relief in thoracoabdominal surgery. ESPB seems to be a safe and effective alternative to thoracic paravertebral block. We report our

experience in single shot ESPB for post operative pain management in newborns (NB) undergoing open type c esophageal atresia repair.

Methods Sixteen NB scheduled for open type C esophageal atresia repair were included in this prospective observational study (2017–2019). Blocks were performed in intubated asleep patients (propofol & or sevoflurane). NB were placed in left Lateral decubitus. A right parasagittal ESPB, was performed at the level of the forth dorsal vertebrae (D 04), followed by in plane injection of 0.5 ml/kg of 0.1% Bupivacaine. We considered as insufficient surgical analgesia any increase in heart rate beyond 20% of baseline and required rescue intravenous (IV) Alfentanil (10 µg/kg). Postoperative pain was evaluated using the EDIN scale (every 4 hours) during The first post operative day. All newborns received intravenous paracetamol (7,5 mg/kg/6h). We have also noted incidents and complications.

Results 16 patients had a primary surgical repair (14 term NB, and 02 prematures). Mean age was 38 post menstrual weeks (36–41). Mean weight was 2150 g (1600–3200). Two NB (12,5%) required intra operative analgesia, but none in postoperative. No pneumothorax nor vascular puncture were noted.

Conclusions Integrated in a multimodal non opioid périopérative pain relief strategy, single shot ESPB seems to be a safe & effective alternative to traditional thoracic epidural & paravertebral blocks, in newborns undergoing open type c esophageal atresia repair.

133 TRUNCAL (TAP AND QL) BLOCKS FOR APPENDECTOMY IN CHILDREN: A RETROSPECTIVE STUDY OF EFFICACY COMPARED TO GENERAL ANESTHESIA ALONE

¹I Kyselova*, ²Y Pavlova, ¹V Orel. ¹Shupyk National Healthcare University of Ukraine, Kyiv, Ukraine; ²Kyiv Children's Hospital #1, Kyiv, Ukraine

10.1136/rapm-2021-ESRA.133

Background and Aims The aim of this study is to evaluate the efficacy of US-guided truncal blocks (TAP and QL) in children undergoing appendectomy.

Methods After approval by the ethics committee we conducted a retrospective study including 204 paediatric patients underwent for appendectomy from April 2020 to April 2021. A group 'GA' received general anaesthesia alone (n=142), a group 'GA+RA' received GA with ultrasound-guided TAP or QL blocks (n=62). We compared total surgical and anaesthesia time, the needs in opioids intraoperatively, non-opioid analgesia and fluid therapy first 5 days postoperatively, incidences of PONV, duration of the body temperature reaction, length of hospital stay (LOS), using Mann-Whitney U-test, chi-square and Fisher's exact tests.

Results Patients in both groups were comparable in age, body weight, ASA status. Total surgical time including anaesthesia was longer in 'GA+RA' group [1,63(0,6) vs 1,34(0,6) hours, p<0,001]. Patients in 'GA+RA' needed significantly less doses of phentanyl intraoperatively [4,5(2,4) vs 7,0(3,6) mkg/kg/h, p<0,001], despite of that, there was no difference in incidences of PONV between groups. 34% of patients in 'GA+RA' and 58% of patients in 'GA' needed additional analgesia in the end of surgery (p=0,003), but needs in non-opioid analgesia in 1–5 days after surgery were comparable. We didn't observe differences in duration of temperature reaction, fluid therapy, as well as in LOS after surgery.