Methods A prospective, double-blind, randomized controlled study was conducted, including 60 patients aged between 1 and 7years undergoing inguinal region surgery. The QLB was performed in GroupI with bupivacaine only(0.25%,0.5ml/kg), in Group II added 0.5 μg/kg, and in GroupIII added 1μg/kg dexmedetomidine. Perioperative hemodynamic parameters, postoperative Ramsey Sedation and Watcha Behavior Scale, FLACC score within the first 24 hours, time to first analgesic requirement, and the amount of additional analgesic given were recorded.

Results The time to request the first rescue analgesia was significantly prolonged in groupII and III[Mean±SD(95% CI)] 1128± 98.6(921.5-1334) and 1200±81.2(1030-1370) min. vs groupI 758±99.6(499.5-916.5) min.,p 0.001). We did not find a significant difference in the time to first rescue analgesia between Groups II and III. There was a significant decrease in the amount of rescue analgesia consumption in GroupII and III than Group I(p=0.001). We found higher Ramsey Sedation Scale scores and lower Watcha Behavior Scale scores in GroupsII and III.

Conclusions Both doses of dexmedetomidine similarly have been shown to prolong the duration of analgesia, reduce postoperative pain scores and decrease the need for rescue analgesics. Therefore, the 0.5 μg/kg dose may be a good alternative to higher doses of dexmedetomidine.

OP036 SPINAL ANESTHESIA IN INFANTS: IS IT TIME FOR A CHANGE?

[1]Walid Alrayashi*, [2]Samuel Kim, [2]Luis Vargas-Patron, [2]Steven Staffa. *[1]Department of Anesthesiology, Critical Care and Pain Medicine, Boston Children's Hospital, Boston, USA; [2]Department of Anesthesiology, Critical Care and Pain Medicine, Boston Children's Hospital, Boston, USA*

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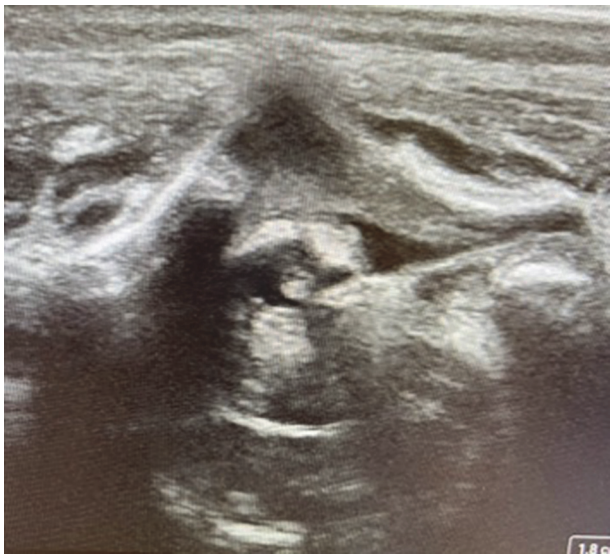
Background and Aims The technique for spinal anesthesia placement in infants has not changed for over 130 years. The standard approach is a landmark-based technique using palpation of the vertebral interspaces and blind advancement of the needle into the intrathecal space. However, with the advancements in ultrasound technology, there may be an opportunity to use direct imaging to improve the success rate of this procedure in infants. Our primary objective was to conduct a retrospective analysis of our spinal anesthesia practices at Boston Children's Hospital in infants

Methods This was a retrospective observational study. Data was obtained from the electronic anesthesia record. The comparison of ultrasound-guided and landmark-based approaches for spinal anesthesia was performed using the non-parametric Wilcoxon rank sum test for continuous outcomes and Fisher's exact test for categorical measures. A two-tailed $p<0.05$ was used to determine statistical significance.

Results 197 spinals were performed mostly for inguinal hernia repairs. We encountered a tendency of the ultrasound-guided technique to provide a higher overall success rate and first-pass success rate than the traditional landmark-based technique when performing an infant spinal. No major complications were observed.



Abstract OP036 Figure 1 Ultrasound images for US-guided spinal anesthesia placement

Conclusions Live in-plane ultrasound guidance can improve the first-pass and overall success rate of spinal anesthesia in infants.

OP037 THE ANALGESIC EFFECT OF ULTRASOUND GUIDED ERECTOR SPINAE PLANE BLOCK VERSUS ULTRASOUND GUIDED CAUDAL EPIDURAL BLOCK FOR ABDOMINAL SURGERY IN PEDIATRIC PATIENTS – A PARALLEL GROUP, PATIENT AND ASSESSOR BLIND, RANDOMIZED STUDY

[1]Ashutosh Pandey, [1]Zainab Ahmad*, [1]Shikha Jain, [2]Abhijit Pakhare, [1]Sunaina Karna Tejpal, [3]Pramod Sharma Kumar, [1]Pooja Singh, [1]Pranita Mandal. *[1]Anesthesiology, All India Institute of Medical Sciences (AIIMS), Bhopal, Bhopal, India; [2]Community and Family Medicine, All India Institute of Medical Sciences (AIIMS), Bhopal, Bhopal, India; [3]Pediatric Surgery, All India Institute of Medical Sciences (AIIMS), Bhopal, Bhopal, India*

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Application for ESRA Abstract Prizes: I don't wish to apply for the ESRA Prizes

Background and Aims Pediatric literature on erector spinae plane block (ESPB) versus caudal epidural block is scanty. Hence, we aimed to compare the effect of ultrasound (USG) guided ESPB with USG guided CEB as a component of multimodal analgesia in pediatric patients undergoing abdominal surgery.

Methods This was a randomised, parallel group, outcome and assessor blind study. After institutional ethics committee approval and informed consent, fifty-two patients, aged 1 to 9 were randomized into two equal groups. ESPB group received unilateral or bilateral USG guided ESPB at T10 vertebral level with 0.5 ml/kg 0.25% bupivacaine per side. CEB group

received ultrasound guided CEB with 1 ml/kg 0.25% bupivacaine. The primary outcome was the proportion of patients requiring rescue analgesia in the 1st 24 hours after surgery. Secondary outcomes were the duration of post-operative analgesia and FLACC scores.

Results Significantly more patients belonging to ESPB than CEB group required rescue analgesia (88.4% versus 42.3% respectively, p value <0.001) in the 1st 24 hours after surgery. The duration of analgesia was shorter in the ESPB group by 9.54 hours (95% CI: 4.51 to 14.57 hours, p=0.000). Though ESPB group patients had satisfactory FLACC scores, they were inferior to CEB group for the first 6 hours after surgery. No adverse effects were reported in both the groups.

Conclusions Both ESPB and CEB were safe and efficacious. CEB provided a longer duration and better quality of analgesia especially in the first 6 hours postoperatively. ESPB may be considered in pediatric patients undergoing abdominal surgery when CEB is contraindicated or difficult.

OP038 CONSENT AND UTILISATION OF PAEDIATRIC PERIPHERAL REGIONAL ANAESTHESIA IN A UK TERTIARY CHILDREN'S HOSPITAL

[1]Navreen Chima*, [2]Caroline Kane, [3]Annabel Pearson, [3]Caroline Wilson. *[1]Anaesthetics, Bristol, UK; [2]Anaesthetics, University Hospitals Bristol and Weston, Bristol, UK; [3]Anaesthetics, Bristol Royal Hospital for Children, Bristol, UK*

10.1136/rapm-2023-ESRA.38

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Application for ESRA Abstract Prizes: I apply as a Trainee/Resident/Fellow (no age limit)

Background and Aims Regional anaesthesia (RA) in children is being driven by the translation of adult 'plan A blocks' into paediatrics. Utilisation hosts many benefits including anaesthetic drug sparing on the developing brain, improved recovery profiles and analgesia action on immature pain pathways. We proposed that inaccurate consent information would affect confidence in and uptake of RA. We aimed to review current practice of consent with a forward plan to provide a unified, accurate message to caregivers.

Methods We performed a retrospective audit of patients who had Trauma and Orthopaedic surgery at the Bristol Royal Hospital for Children over a three-month period, identified via our electronic theatre system (Bluespier). These 205 cases yielded 32 who had peripheral RA (15.6%) and their anaesthetic charts were analysed. Standards of consent were set against national guidance (RA-UK/AAGBI).

Results Of the 32 patients, 31 had consent discussions documented with only 21 referencing a named block. The benefits/alternatives were discussed in nine cases while simple post-op analgesia or limb safety was never explained. Risks of RA were discussed in just 10 cases (31%), with block failure advised in only seven.

Conclusions This limited consent may in part reflect the lacking international guidance of RA risks specific to children. To standardise consent we have produced an aide memoire and documentation template that includes recommendations by AAGBI/RCOA alongside specific paediatric RA risk considerations (figure 1). Additionally, we have produced an information leaflet and educated our anaesthetists on recent paediatric-specific data. These tools have begun removing barriers of peripheral RA in our children's hospital.

Peripheral Block:.....
Explained to: .....
☐ Benefits ☐ Alternatives
☐ Q's answered ☐ Leaflet given
Risks:
☐ Failure ☐ LA Toxicity
☐ Nerve injury: temporary/permanent Block specific:
Post Block: ☐ Pain relief ☐ Care of limb
Comments:

Abstract OP038 Figure 1 Paediatric consent aide memoire and documentation template

Peripheral nerve blocks – Free papers 4

OP039 SUPERIOR TRUNK BLOCK IS AN EFFECTIVE PHRENIC-SPARING ALTERNATIVE TO INTERSCALENE BLOCK FOR SHOULDER ARTHROSCOPY: A SYSTEMATIC REVIEW AND META-ANALYSIS

[1]Sara Amaral*, [2]Rafael Lombardi, [3]Heitor Medeiros, [4]Allêh Nogueira, [5]Jeffrey Gadsden. *[1]Anaesthesiology, Araranguá, Brazil; [2]Anaesthesiology, University of Nebraska Medical Center, Omaha, USA; [3]Anaesthesiology, Hospital Universitário Onofre Lopes, Natal, Brazil; [4]Anaesthesiology, Escola Bahiana de Medicina e Saúde Pública , Salvador, Brazil; [5]Anaesthesiology, Duke University, Durham, USA*

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Application for ESRA Abstract Prizes: I don't wish to apply for the ESRA Prizes

Background and Aims The Superior Trunk Block (STB) is being considered as an alternative to Interscalene Block (ISB) for shoulder arthroscopy. This study aims to compare efficacy and safety between these techniques.

Methods PubMed, EMBASE, Scopus and Cochrane were searched for randomized controlled trials (RCTs) comparing the STB to the ISB for shoulder arthroscopies. Outcomes assessed included incidence and extent of hemidiaphragmatic paralysis, pain scores, opioid consumption, patient satisfaction, block duration, and block-related complications. RevMan 5.4 analyzed data. Risk of bias was appraised using the RoB-2 tool.

Results We analyzed 4 RCTs involving 359 patients, of whom 49.5% underwent STB. The results showed that STB resulted in less total hemidiaphragmatic paralysis (figure 2), less subjective dyspnea (figure 3) and lower incidence of Horner's Syndrome (RR 0.06; 95% CI 0.01 to 0.32; p < 0.001; I2 = 0%, 3 RCTs, 221 patients). No statistically significant differences were found between the two groups for other outcomes, except for pain score at rest at 24h, which was favorable to STB (MD -0.75; 95% CI -1.35 to -0.15; p = 0.01). However, we should consider the clinical relevance of this