Abstracts

Abstract 140 Figure 2

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epinephrine 0,00018%. The duration of the blockade was assessed. Pain intensity was assessed at the 6th, 12th, 24th and 36th h. after blockade. The amount of narcotic anesthetic were also recorded. In addition, patients underwent electromyography of the innervation area of the blocked nerve before the surgery and 24 and 36h after surgery.

Results Duration of blockade in G2 was longer by 10h, intensity of pain was significantly higher after 24h (1.65 ± 1.35 in G2 and 5.3 ± 1.26 in G1). According to electromyography, 24h after blockade conductance in G1 was restored by 95–100%, unlike G2, where conductivity was restored by only 47–59%.

Conclusions Proposed combination of local anesthetics and adjuvants provides both adequate anesthesia during surgery and prolonged post-operative analgesia.

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A PILOT STUDY TO EVALUATE THE UTILITY OF ASSISTIVE ARTIFICIAL INTELLIGENCE IN ULTRASOUND-GUIDED REGIONAL ANAESTHESIA

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Background and Aims Ultrasound-guided regional anaesthesia (UGRA) involves the acquisition and interpretation of ultrasound images. This pilot study explores the utility of an artificial intelligence (AI) device, which highlights key sono-anatomical structures with a real-time colour overlay.

Methods With ethical approval, 30 anaesthetists collected 240 ultrasound scans over nine block regions. Half (n=15) of participants were experts in UGRA, 120 scans were performed with the AI device (60 expert & 60 non-expert – under supervision). Half were performed in a subject of BMI <30

kg/m² (half BMI ≥30 kg/m²). Participants completed structured questionnaires on benefits of the device and potential risks of unnoticed incorrect highlighting.

Results Data are summarised in tables 1–3. Feedback was positive in 165/360 (45.8%) instances for non-experts, and 102/300 (34.0%) for experts (Yates's $\chi^2 = 9.03$, $p < 0.01$). Feedback was neutral in 186/360 (51.7%) and 178/300 (59.3%) for non-experts and experts respectively (Yates's $\chi^2 = 3.58$, p

Abstract 141 Figure 1

Abstract 141 Table 1 Non-expert feedback on benefits (n=60)

	Positive (Increase)	Neutral	Negative (Decrease)
Identifying Structures	31 (51.7%)	27 (45.0%)	2 (3.3%)
Finding Correct View	22 (36.7%)	37 (61.7%)	1 (1.7%)
Learning Scan	36 (60.0%)	23 (38.3%)	1 (1.7%)
Helped Training	37 (61.7%)	23 (38.3%)	0 (0%)
Supervisor Support	8 (13.3%)	51 (85.9%)	1 (1.7%)
Confidence	31 (45.8%)	25 (51.7%)	4 (2.5%)
Overall (/360)	165 (45.8%)	186 (51.7%)	9 (2.5%)

Abstract 141 Table 2 Expert feedback on benefits (n=60)

	Positive (Increase)	Neutral	Negative (Decrease)
Identifying Structures	15 (25.0%)	42 (70.0%)	3 (5.0%)
Teaching	30 (50.0%)	29 (48.3%)	1 (1.7%)
Supervising	27 (45.0%)	29 (48.3%)	4 (6.7%)
Frequency of Intervention	16 (26.7%)	34 (56.7%)	10 (16.7%)
Confidence	14 (23.3%)	44 (73.3%)	2 (3.3%)
Overall (/300)	102 (34.0%)	178 (59.3%)	20 (6.7%)

Abstract 141 Table 3 Expert-identified potential increased risk from device highlighting (max n=103)

	Yes	No
Nerve Injury (/103)	5 (4.9%)	98 (95.1%)
Pneumothorax (/65)	0 (0%)	65 (100%)
LAST (/86)	3 (3.5%)	83 (96.5%)
Peritoneum Violation (/49)	0 (0%)	49 (100%)
Block Failure (/103)	4 (3.9%)	99 (96.1%)
Total (/406)	12 (3.0%)	394 (97.0%)

= 0.06). Negative feedback was noted in 9/360 (2.5%) and 20/300 (6.7%) for non-experts and experts (Yates's $\chi^2 = 5.81$, $p = 0.02$). Experts reported no increased risk in 394/406 (97.05%) and that unnoticed incorrect device highlighting carried potential increased risk in 12/406 (3.0%).

Conclusions Non-experts viewed the device most positively, particularly in support of learning, training and identifying sono-anatomical structures. Perceived increased risk was infrequent, but some potential complications considered may be clinically important (e.g., nerve injury, local anaesthetic systemic toxicity). This pilot study provides evidence that such technology may support (rather than replace) clinician judgement for UGRA procedures.

142 COMPARING THE EFFICACY OF PERICAPSULAR NERVE GROUP BLOCK (PENG) BLOCK VERSUS SUPRA-INGUINAL FASCIA ILIACA BLOCK (FIB) IN HIP ARTHROPLASTY

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Background and Aims Postoperative pain is a major concern in the patients undergoing Total Hip Arthroplasty. Peripheral nerve blockades have started gaining attention in the recent past for arthroplasty. Supra-inguinal fascia iliaca block (FIB) has become the standard of care at many places. Lately, (PENG) block has been proved to be safe and effective.

To compare the analgesic efficacy of USG guided Pericapsular nerve group block (PENG) with Supra-inguinal fascia iliaca block (SIFIB) in THR under General Anesthesia (GA).

Methods After IEC clearance, 18 patients scheduled to undergo THR under GA were included in this double blinded, randomized controlled trial.

Group I received PENG and Group II received SIFIB block with 0.25% bupivacaine and 1mcg/kg clonidine respectively. The primary outcome was 24 hr morphine consumption. Secondary outcomes were Intraoperative opioid consumption, Mean Numerical rating scale (NRS: 0–10) in 24 hr. and adverse effects.

Results Baseline demographics were similar. The mean 24-hour morphine(mg) consumption in Group I(PENG) was 10.44 ± 1.94 mg and 12.22 ± 1.85 mg in Group II(SIFIB) with p value=0.065. Intraoperative Fentanyl consumption(mcg) in PENG was 51.11 ± 9.28 and in SIFIB was 67.78 ± 12.02 with p value = 0.005 which is statistically significant. Median of Mean NRS of 24 hr was 2.63 ± 0.44 in PENG and 3.31 ± 0.62 in SIFIB.

Conclusions Patients receiving PENG block required less intra-operative opioid. The postoperative 24-hour morphine consumption though not statistically significant but could be clinically significant. Also, PENG group experienced less pain comparing to SIFIB group. Two patients experienced vomiting in the SIFIB group.

IEC Clearance obtained with reference number: AIIMS/Pat/IEC/PGTH/July19/22.

143 PERIBULBAR BLOCK – A MATURE OPTION FOR AN IMMATURE PATIENT

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Background and Aims Literature is scarce regarding anesthetic management for treatment of retinopathy of prematurity (ROP). Retrospective analysis report that peribulbar block (PB) combined with general anesthesia (GA) seems safe in preterm infants.

Methods We report a case of a preterm infant submitted to bilateral PB for surgical treatment of ROP.

Results 2.8 kg, 41 weeks correct age male preterm infant was scheduled for elective vitreoretinal surgery due to stage IV ROP.

In preoperative assessment no supplement oxygen was needed and he presented anemia and gastroesophageal reflux. Monitorization included continuous electrocardiogram, two pulse oximeters, noninvasive arterial pressure, end tidal carbon dioxide, temperature and glycemia. GA and tracheal intubation were performed and bilateral PB was executed with single infratemporal injection 0.25 ml/kg/eye ropivacaine 0.375% with 30G needle (0.7 mL local anesthetic/eye). Maximum allowed concentration was considered (3 mg/kg).

Intraoperative course lasted 290 minutes and was uneventful, without further opioid requirements. Dexamethasone and paracetamol were administered. Neuromuscular blockage was reversed and infant successfully extubated and transferred to Neonatal Intensive Care Unit for 24 hours, following local protocol. No complications were reported or rescue analgesics were required.

Conclusions Premature infants present a challenge as they are more prone to perioperative cardiorespiratory complications.

PB has demonstrated effectiveness in reducing incidence of oculocardiac reflex, surgical bleeding, postoperative apnea and pain. GA complemented with bilateral PB achieved stable hemodynamics without additional opioid throughout surgery, indicating an acceptable quality of analgesia. Moreover, risk of postoperative apnea was reduced, as baby presented < 60 weeks correct age and anemia, two known risk factors in pre-term infants.

144 TOTAL KNEE ARTHROPLASTY: CHRONIC PAIN AND FUNCTIONAL EVALUATION AFTER ONE YEAR, IMPLICATION OF THE FEMORAL NERVE BLOCK

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