

B436 REGIONAL ANESTHESIA IN SURGERY OF PEDIATRIC PATIENTS WITH CONGENITAL SYNDROMES – CASE SERIES

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Background and Aims Pediatric patients suffering from severe congenital syndromes require special attention and preoperative care, due to the complexity of their condition and potential complications that may arise during and after surgical procedures.

Methods Our case series involves five pediatric patients with different syndromes – Patau, Shprintzen-Goldberg, Larsen and Kabuki syndrome. Everyone except Patau patient were admitted at the Orthopedic and Trauma Department for hip and foot operation. Inguinal hernia repair has been performed at Patau patient. We performed popliteal blocks, PENG block, lumbosacral block, femoral block, dual TAP block. Each of the aforementioned syndromes is characterized by multiple anomalies of the central nervous system, cardiovascular, respiratory, gastrointestinal and skeletal systems, making it more difficult to intubate and ventilate the patient. Four patients underwent ultrasound-guided peripheral neural block procedures concomitantly with sedation prior to surgery. One patient was put under general endotracheal anesthesia and popliteal peripheral nerve block was performed prior to the operation.

Results All patients were hemodynamically stable with good ventilation mechanics throughout the surgical procedure, without pain, so there was no need for additional use of opioid drugs. Postoperatively, all the patients were fully awake, pain free, without nausea and vomiting, while maintaining excellent breathing mechanics and pattern.

Conclusions We can conclude that regional anesthesia i.e., peripheral nerve blocks can have a crucial role in perioperative care of patients with complex conditions, who have high chances of developing perioperative complications – difficult intubation and ventilation, aspiration, bronchospasm, laryngospasm, nausea, vomiting, pneumonia and others.

B437 DEXAMETHASONE AS ADJUVANT IN UPPER EXTREMITY PERIPHERAL NERVE BLOCKS IN PEDIATRIC PATIENTS

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Background and Aims

Introduction Peripheral nerve blocks for perioperative and postoperative analgesia in pediatric surgery has become increasingly popular in recent years. Thanks to ultrasound guidance, supraclavicular block has regained its popularity since the incidence of complications (pneumothorax) has decreased. Adjuvants are used in order to prolong the duration of peripheral nerve block, and also for limiting the cumulative dose of local anesthetics.

Aim To observe the effect of dexamethasone as adjuvants to local anesthetics in peripheral nerve block in pediatric patients.

Methods The study included 80 patients in the aged group 4–14 years admitted for surgical treatment of upper limb fracture in the period from January 2020 till March 2022. Patients were randomized in two groups. Patients in group 1 (40 patients) received supraclavicular or interscalene block with 2 ml lidocaine 2% and bupivacaine 0.25% (max 2mg/kg) with a total volume of 0.5 ml/kg. In group 2, patients (40) received supraclavicular or interscalene block with 2% lidocaine 2 ml and 0.25% bupivacaine (max 2mg/kg) in combination with 2mg dexamethasone with a total volume of 0.5 ml/kg.

Results The duration of the sensory and motor block was significantly longer in group 2 compared with the first group and also the total number of postoperative doses of analgesia was lower.

Conclusions Dexamethasone is acceptable adjuvant that prolong the duration of action of local anesthetics and thus reduce the need for analgesics in the postoperative period.

B438 DURAL PUNCTURE EPIDURAL FOR CAESAREAN DELIVERY IN A PATIENT WITH RECENTLY UNSTABLE MULTIPLE SCLEROSIS

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Background and Aims Multiple sclerosis is a rare disease involving demyelination of the central nervous system tissue as a result of an autoimmune mechanism. Postpartum relapse rates of 26% are described independent of neuraxial use patterns. Many practitioners will avoid spinal anaesthesia in MS.

Methods Case Description

Results A 30-year-old with a history of multiple sclerosis presented for elective Caesarean section. She reported right-sided sensory deficit in the upper and lower limb with lower limb weakness and difficulty walking in the first trimester and her neurological symptoms had resolved by the third trimester. An epidural catheter was inserted at L4/5 with needle through needle passage of a 27G pencil-point spinal needle. Clear CSF observed but no medication was administered through the spinal needle. Plain Bupivacaine 0.5% and Lidocaine 2% were administered. The patient had no pain during the procedure with adequate sensory and motor blockade. She made an uneventful recovery with no recurrence of neurological symptoms.

Conclusions A recently described technique for labour analgesia is the Dural Puncture Epidural which afforded rapid onset and reliable analgesia compared with standard epidural. We felt the DPE would enhance the efficacy of the epidural block while avoiding the concerns around direct administration of local anaesthetic into the thecal sac. The success of the technique in a single case does not render it superior to other standard neuraxial approaches. In a patient with recently active demyelination symptoms, we had increased confidence with this approach aiming to minimise the risk of disease exacerbation and maximise block success.