



Abstract EP126 Figure 1 Validity of elastic modulus of CHL on shear wave elastography for differentiating adhesive capsulitis using ROC analyses. CHL; coracohumeral ligament, AUC ; area under the ROC curve, ROC ; receiver operating characteristic

Results Baseline characteristics were similar between two groups (table 1). Elasticity of CHL with maximal ER was similar between two groups. However, elasticity of CHL with maximal ER in patient group were significantly higher than those of CHL with 30° ER in healthy group (table 2). Cut-off value of CHL elasticity in 30° ER was 107.4 (figure 1). SWE showed good inter-rater reliability and intra-rater reliability for CHL elasticity (with 30° ER, ICC 0.662 and 0.514; with maximal ER, ICC 0.660 and 0.506).

Conclusions Shear wave elastography can show increased tissue elasticity of CHL in adhesive capsulitis of shoulder compared to healthy group with good intra- and inter-rater reliability. Also, the optimal cut-off value of CHL elasticity to predict adhesive capsulitis was presented.

ePoster session 4 – Station 4

EP127 DURATION OF ANALGESIA AFTER INTERSCALENE BRACHIAL PLEXUS BLOCK COMBINED WITH INTRAVENOUS DEXAMETHASONE AND DEXMETETOMIDINE: A RANDOMISED, CONTROLLED, TRIPLE-BLINDED TRIAL

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Background and Aims Pain management of arthroscopic shoulder day-case surgery is a real challenge. Intravenous dexamethasone and dexmedetomidine are two adjuncts to local anaesthetics used independently to prolong analgesia after peripheral nerve block, when no perineural catheter is used.

Methods This randomised, controlled, triple-blinded trial tested the hypothesis that the intravenous combination of dexamethasone and dexmedetomidine would provide superior analgesia

than intravenous dexamethasone alone in patients undergoing arthroscopic rotator cuff repair with an interscalene brachial plexus block. After induction of general anaesthesia, 122 patients were randomised to receive intravenously either dexamethasone 0.15mg.kg⁻¹ (Dexa group) or a combination of dexamethasone 0.15mg.kg⁻¹ and dexmedetomidine 1µg.kg⁻¹ (Dexa-Dexme group). The primary outcome was the duration of analgesia measured from the time of block procedure to first oral morphine intake. Secondary outcomes included duration of sensory and motor blocks, pain scores at rest and on movement, cumulative oral morphine consumption at 48h and rates of hypotension.

Results The mean (standard deviation) duration of analgesia was 24.5h (2.0h) in the Dexa group and 22.4h (1.6h) in the Dexa-Dexme group (p=0.42). Similarly, there were no significant differences in all the secondary outcomes, with the exception of rates of hypotension that was higher in the Dexa-Dexme group (83.3% vs 43.5%, p<0.001)

Conclusions In conclusion, the intravenous combination of dexamethasone and dexmedetomidine does not provide superior analgesia than intravenous dexamethasone after an interscalene brachial plexus block. The administration of dexmedetomidine is associated with more episodes of hypotension.

EP129 COMPARISON OF CLINICAL EFFECTS AND PHYSICAL EXAMINATION OF TRANSFORAMINAL AND CAUDAL STEROID INJECTION WITH TARGETED CATHETER IN LUMBAR RADICULOPATHY

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Background and Aims Transforaminal and caudal epidural steroid injections are used to treat lumbar radiculopathy. The aim of this study was to investigate the clinical effects and physical examinations of transforaminal steroid injection compared to caudal through a targeted catheter in lumbar radiculopathy.

Methods Fifty patients with lumbar radiculopathy candidates for epidural steroid injection were divided into transforaminal (T) and caudal (C) groups. Steroid injection was performed in group T with transforaminal method, and in group C with caudal method using a targeted catheter for each involved spinal nerve root. Pain intensity (VAS), Oswestry Disability Index (ODI), daily analgesic consumption, and physical examinations on 4 follow-ups were evaluated.

Results Pain score (VAS) and functional disability index (ODI) were similar in both groups, and there was no significant difference between the two groups (p>0.05). The positive Lasègue test was significantly higher in the caudal group than in the transforaminal group only in the third month (p<0.05). Other physical examinations in both groups did not have significant differences in all the follow-ups. Also, there was no difference in the amount of analgesic consumption in the two groups. No complications were observed in both groups.

Conclusions This study showed that transforaminal and caudal steroid injection (with a targeted catheter) in patients with lumbar radiculopathy had similar effects in controlling pain and improving functional disability of patients in the short term. Cases of recurrence of positive Lasègue test in physical

examinations in the long term (third month) in the caudal group may indicate the preference of the transforaminal approach.

EP130 EPIDURAL LABOUR ANALGESIA IN A PATIENT WITH NEUROFIBROMATOSIS – HOW MUCH RISK IS TOO RISKY?

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Background and Aims Neurofibromatosis is a multisystem genetic disorder which manifests with pigmentary skin changes, neurofibromas, increased risk of central nervous system gliomas and other malignant tumors and learning disabilities. Performing an epidural technique in patients with neurofibromatosis is subject to careful consideration due to potential challenges including the presence of neurofibromas involving the spinal cord.

Methods Description of a case of an epidural performed for labour analgesia in a patient with neurofibromatosis.

Results We present a case of a 31-year-old woman, ASA II, 40 weeks pregnant, diagnosed with neurofibromatosis, who was admitted at our hospital in active labour. The patient expressed the will to receive epidural analgesia. She was asymptomatic except for the presence of café-au-lait spots and cutaneous neurofibromas. Her magnetic resonance imaging (MRI) of the brain and spine showed thickening of the optic chiasm and hypothalamus and absence of spinal lesions. There was no history of back pain, headache, neurological deficits or hypertension. Neurological examination was normal, with no sensory or motor deficits. She had normal curvature of the spine. We proceed with the epidural technique. An epidural catheter was placed at L3-L4 level in the midline after finding the epidural space using a loss of resistance to saline technique. There were no complications associated with the technique and the patient had adequate level of analgesia. The patient had a vaginal birth with no complications.

Conclusions The report suggests that epidural labour analgesia may be a suitable option when spinal cord neurofibromas have been ruled out by magnetic resonance imaging and clinical examination.

EP131 IN VITRO EVALUATION OF THE EFFECT OF DEXMETOMIDINE ON OXYTOCIN PRE-TREATED PREGNANT HUMAN MYOMETRIUM

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Background and Aims Postpartum hemorrhage (PPH) remains to be one of the leading causes of maternal morbidity and mortality attributed to the rising rate of uterine atony. Dexmedetomidine, a highly-selective alpha-2 agonist, has been used in obstetric practice due to its desirable effects. It has applications as an adjunct during neuraxial anesthesia, as well as in general anesthesia (GA) for caesarean delivery. Information on dexmedetomidine's effect on the contractility of human myometrium remains limited.

Methods Term pregnant patients scheduled for elective CD under regional anesthesia were included. Myometrial tissues were collected by the obstetrician after the delivery of the fetus and placenta and were immediately placed in buffer solution and transferred to the laboratory. Tissue samples were divided into 3 strips and were mounted individually in organ bath chambers filled with physiological salt solution (PSS). Myometrial contractions recorded and were used for analysis as baseline equilibration contractions. The myometrial strips were pre-treated with oxytocin 10-5M for 2 hours and assigned to 3 groups: 1) Dex group (subjected to dose-response testing with increasing concentrations of dexmedetomidine 10-9M to 10-4M), 2) Dex + Oxy group (received oxytocin at 20nM along with dexmedetomidine 10-9M to 10-4M), and 3) Control (only oxytocin 20nM).

Results There is a 363% increase in relative motility index recorded in the Dex group at 10-4M concentration. There is also an increase in relative MI in Dex

+ Oxy group however it was not significant (196%) owing to the desensitization phenomenon.

Conclusions Dexmedetomidine significantly caused an increase in myometrial contractility of pregnant human myometrium at 10-4M concentration.

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EP132 ORAL DEXAMETHASONE AS AN ADJUNCT TO A BRACHIAL PLEXUS BLOCK: A RANDOMISED, BLINDED, PLACEBO-CONTROLLED, CLINICAL TRIAL

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Background and Aims To our knowledge, the effect of oral dexamethasone on block duration has never been assessed. Previous trials used subanalgesic doses of dexamethasone (≤ 10 mg), and it is unclear if there is a ceiling effect.

Methods We randomised 180 participants undergoing osseous surgery of the hand or forearm to one oral dose of 24 mg dexamethasone, 12 mg dexamethasone, or placebo prior to performing a lateral infraclavicular block with 30 ml of 5 mg/ml ropivacaine. The primary outcome was the duration of analgesia assessed by the time to first sensation of pain in the surgical area. We pre-defined a 33% increase in the duration of analgesia as clinically important.

Results The duration of analgesia was 1256 ± 395 minutes with 24 mg dexamethasone, 1171 ± 318 with 12 mg dexamethasone, and 841 ± 327 minutes with placebo (figure 1). When compared with placebo, the duration of analgesia was greater with 24 mg dexamethasone (mean difference (MD) 412 minutes, 98.33% CI 248 to 577) and with 12 mg dexamethasone (MD 330 minutes, 98.33% CI 186 to 474). There was no significant difference between 24 mg and 12 mg