Background and Aims Advantages of PCEA over CEA have been demonstrated in obstetric patients. Whether similar benefit applies to surgical patients is unclear.

Aim: To assess possible advantages of patient controlled epidural analgesia (PCEA) over continuous epidural analgesia (CEA) in surgical patients

Methods Embase, PubMed and Cochrane library were searched, enabling systematic review of studies comparing PCEA and CEA in adult surgical patients (PROSPERO: CRD42018106644). Study quality was assessed using Cochrane Risk-of-Bias tool (RoB2). Primary outcome: pain score on postoperative day one (POD1). Secondary outcomes: 24 or 48 hour epidural or intravenous total analgesic dose, manual top-ups and patient satisfaction

Results Eleven trials (ten RCTs, one cohort-analysis, 1687 patients) with high heterogeneity of study characteristics were identified with a high to intermediate risk of bias. Three studies showed reduced pain scores on POD1 in PCEA compared to CEA patients (36–42%, $P<0.05$). Seven studies found comparable pain scores between groups, one study a higher pain score in PCEA patients. PCEA-use reduced epidural medication (28% to 76% reduction, $P<0.01$) in seven studies. Two studies found lower top-up frequency and higher analgesic satisfaction in PCEA; PCEA patients used less intravenous morphine (0.16 vs 3.45 mg per patient, $P<0.05$) in one study.

Conclusions Regarding pain scores, rescue systemic analgesics and patient satisfaction, PCEA in surgical patients had limited advantages over CEA. PCEA reduced the amount of epidural medication and top-up frequency. On the basis of current available evidence, we cannot conclude that PCEA offers major benefits over CEA in surgical patients.

221 IMPACT OF THE ERECTOR SPINAE PLANE BLOCK ON THE POSTOPERATIVE PAIN OF LUMBAR SPINAL STENOSIS SURGERY. A SINGLE BLIND RCT- A 70% PATIENT'S INTERIM ANALYSIS

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Background and Aims The erector spinae plane (ESP) block was described in 2016 by Forero et al. It involves the injection of local anesthetic into the interfascial plane, deep to erector spinae muscle, allowing the blockade of the dorsal and ventral rami of the thoracic spinal nerves. It was initially proposed for analgesia of costal fractures, pulmonary lobectomy and thoracic vertebrae. The ESP block (ESPB) could probably be extended to a large number of surgical procedures.

Methods After ethical commitee approval and informed consent, 80 patients were included in this prospective, single blind, monocentric RCT for lombar spinal stenosis surgery (LSSS) under general anesthesia: 40 patients with ESPB, 40 patients with local infiltration (LI) by the surgeon. The current interim reporting is based on 28 patients in ESPB and 28 in LI. Piritramide consumption was followed. The ESPB was realized on T12 and ultrasound-guided (chirocaine 0.25%+ epinephrine 1:200.000 4 mg/kg). The control group was injected at the same concentration by the surgeon. Complementary analgesia was realized with Patient Controlled Analgesia (Piritramide), paracetamol and ketorolac.

Results After performing a T-test to compare the means of piritramide consumption at day 1, we did not find any significant difference between the 2 groups (ESPB 12.9 mg versus LI 14.7 mg, $p=0.55$). A Mann-Withney U-test was also performed and did not show any difference.

Conclusions After collecting data from 70% of the population, we cannot conclude that there is a benefit of ESPB over LI by the surgeon.

222 THE USE OF REGIONAL ANAESTHESIA AND IDENTIFYING COMPARTMENT SYNDROME: A CASE REPORT

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10.1136/rapm-2021-ESRA.222

Background and Aims Acute compartment syndrome is a surgical emergency, and must be identified promptly in order to limit potential complications. The use of regional anaesthesia remains controversial for patients who are at higher risk of developing compartment syndrome due to concerns that the cardinal symptoms may be masked, and diagnosis subsequently delayed. This is a case report of a clinical situation which opposes this theory.

Methods A 31 year old male presented to a major trauma centre following a road traffic accident. Radiological imaging showed he had sustained multiple injuries, including a closed right tibia and fibula fracture and an extensive left calf laceration which required operative management. A lumbar epidural was inserted for intra-operative and postoperative analgesia, prior to the patient undergoing IM nail fixation of the right tibial fracture and exploration of the left leg laceration under general anaesthesia.

Results The lumbar epidural provided good analgesia which was maintained with a continuous infusion of 0.125% levobupivacaine and 2mcg/ml fentanyl. Fourteen hours postoperatively, this patient developed severe right lower limb pain. Intra-compartmental pressures were measured at this stage, where it was noted that anterior compartment pressures were abnormal and the patient underwent urgent fasciotomy under general anaesthesia. Operative findings at this time were consistent with a diagnosis of compartment syndrome, with maintained viable muscle tissue present on examination.

Conclusions This case demonstrates support for alternative theories that regional anaesthetic techniques using low concentrations may provide effective analgesia without the risk of masking the presentation of acute compartment syndrome.

223 POST OPERATIVE PAIN MANAGEMENT FOR HIP FRACTURE SURGERY, A NEW PROTOCOL EVALUATION

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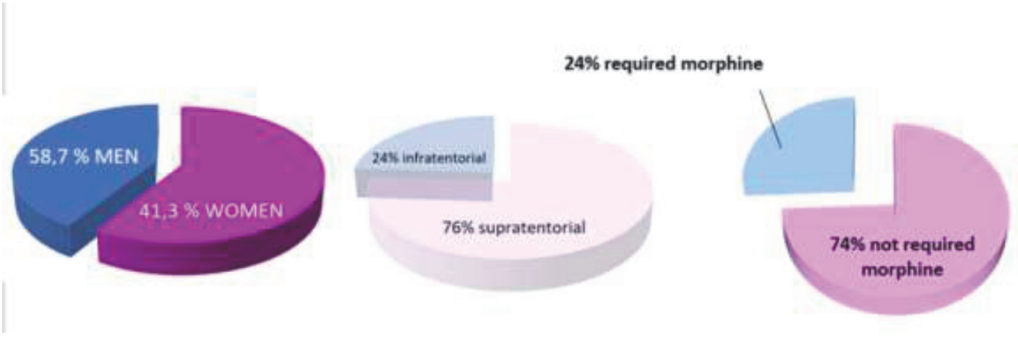
Background and Aims Hip fracture surgeries represent a significant burden on the healthcare system. Delirium could affect up to 61% of patients with hip fracture, and is associated with delayed recovery, higher morbidity and poor cognitive function.(1)



Abstract 223 Figure 1 Average pain scores

We hypothesize that adequate post-operative pain management using continuous supra-inguinal fascia illiaca catheter (SIFC) will reduce incidence of dementia in hip fracture patients.

Methods We evaluated a new protocol for post-operative pain management in hip fracture surgeries in a tertiary referral, Level 1 equivalent trauma centre. Upon theatre arrival, peri-capsular injection 10 ml lignocaine 2% followed by threading of supra-inguinal fascia illiaca catheter (SIFC) under ultrasound guidance. Continuous bupivacaine 0.2% infusion was started postoperatively at rate of 5 ml/hr for 48 hrs.

Pain was assessed 10 min after peri-capsular injection during positioning for spinal anaesthesia (lateral position) on a scale 0–10. and every 12 hrs postoperatively for 48 hrs. Delirium was assessed upon theatre admission and every 12 hrs for 48 hrs using CAM ICU.

Results Twenty patients who had hip fracture surgery were successfully followed up, two patients were excluded because catheter was slipped in the first 24 hours.The incidence of new onset delirium was found to be 10% (2/20), there was 58% reduction in the incidence of delirium among traumatic hip fracture patients when compared to the literature (24%).[1,2] The Morphine Milligrams Equivalent (MME) in the first 24 hrs are 34±27, while in the second 24 hrs 32 ±25.

Conclusions Implementation of supra-inguinal fascia illiaca continuous block could reduce incidence of delirium in hip fracture population by up to 58%.

224 SAFETY AND EFFICACY OF SUFENTANIL SUBLINGUAL TABLET SYSTEM (SSTS) FOR POSTOPERATIVE PAIN (POP) RELIEF AFTER OFF-PUMP CORONARY ARTERY BYPASS SURGERY (OPCABG)

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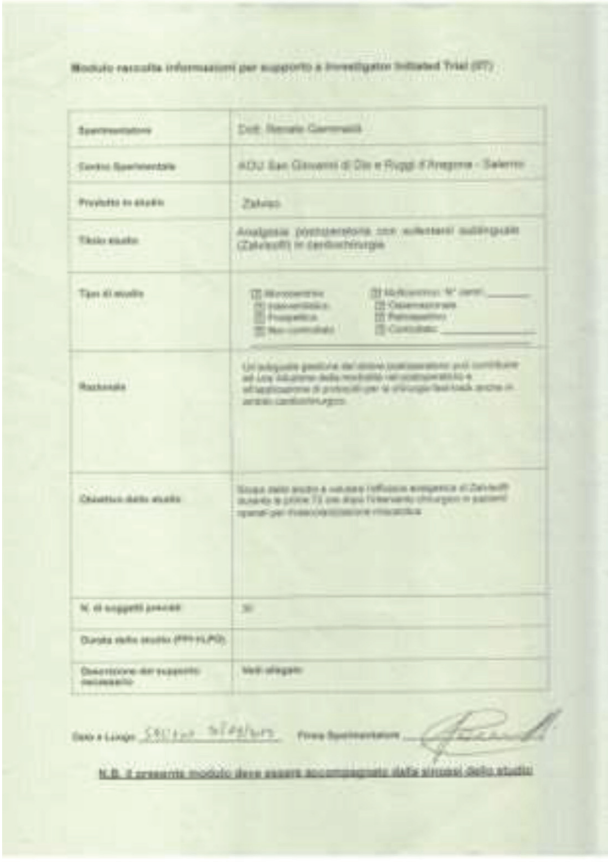
Background and Aims POP in cardiac surgery is often overlooked, being moderate to severe in up to 75% of patients. Moreover, 35% of patients report persistent thoracic pain one year post surgery. SSTS is a handheld PCA device that delivers a fixed dose of 15 mcg sufentanil tablets on a PRN basis. We evaluated clinical application of SSTS for POP relief after OPCABG, assessing effectiveness, safety, and patient satisfaction.

Methods Observational case series on 20 patients who underwent OPCABG. POP was managed by the exclusive use of SSTS. Prior to the end of surgery, paracetamol 1 g, sufentanil 0.15–0.2 mcg/kg, ondansetron 4 mg were administered. Efficacy was assessed by patient reports of pain intensity on numerical rating scale (NRS). Safety assessments included vital signs. Patient satisfaction was assessed via the Patient Global Assessment (PGA) of method of pain control, with 'success' defined as the proportion of patients responding 'good' or 'excellent'.

Results Average patient age was 61 years, BMI was 26.6. Mean number of doses was 20 (range 8–52) over 72 hours, with inter-dosing intervals of 159 minutes. Median NRS was 1 (range 0–4) at rest, and 2 (range 0–6) during movement. No desaturation (SpO2 < 92%) was found. PGA scores showed a success rate of 91%. Neither harvesting nor cannulation of the radial artery of the dominant limb limited the use of SSTS.



Abstract 224 Figure 1