babies. The patients are then transferred to the intensive care unit(ICU) in a stable condition without vasopressor drugs. We used epidural analgesia for post-operative pain management. They were moved to a regular ward after 24 hours of monitoring with uneventful adverse effects.

Conclusions CSE anesthesia with hypervolemic hemodilution technique showed good fetomaternal outcomes with uneventful adverse effects, acceptable post- operative hematocrit level and excellent post-operative pain management in our patients.

EP179 MODIFICATION OF SPHENOPALATINE GANGLION BLOCK FOR TREATMENT OF POSTURAL PUNCTURE HEADACHE: A CASE SERIES

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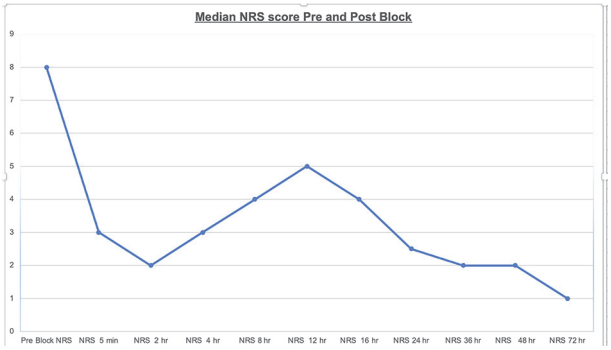
10.1136/rapm-2023-ESRA.240

Background and Aims The search for more straightforward to treat PDPH has led to regional blocks like sphenopalatine ganglion block (SPGB) and greater occipital. nerve block and trigger point infiltration. We have evaluated the efficacy of MSGB in treating PDPH. This is an ongoing study, and we are presenting preliminary data of our study in 13 patients as case series.

Methods Patients with typical symptoms of PDPH are recruited in this study. Pain score was assessed before the procedure using NRS (0 – no pain to 10 – worst pain imaginable) in the static and dynamic state. 2 ml of solution (1ml of 2% lignocaine + 1ml of 0.5% ropivacaine or normal saline) was slowly instilled along the superior edge of the middle concha to the posterior wall of the nasopharynx with the help of a dropper in each nostril alternatively as modified spheno palatine ganglion block (MSPGB). After 5 min, the patients were asked to lift their head gradually and be asked to report their pain as per NRS. Subsequently, NRS will be assessed at 2, 4, 8, 12, 16, 24-, 36-, 48- and 72 hours post block. The MSGB was repeated if the patient reported NRS > 4.

Results 13 patients have been given MSPGB, and the median NRS score Pre MSPGB block was 8 but post-MSPGB, median score was reduced to 3,2,3,4,5,4,2.5,2,2 and 1 at 2,4,8,12,16,24,36, 48 and 72 hours respectively.

Conclusions MSGB is a simple & noninvasive method of treating PDPH along with minimal side effects in postoperative care settings.



Abstract EP179 Figure 1 Median NRS scores against various time interval after administration of MSPGB

EP180 CONTINUOUS DEEP SERRATUS ANTERIOR PLANE BLOCK FOR STERNOTOMY ANALGESIA FOLLOWING CARDIAC SURGERY: A RANDOMIZED, PLACEBO-CONTROLLED, DOUBLE-BLINDED FEASIBILITY STUDY

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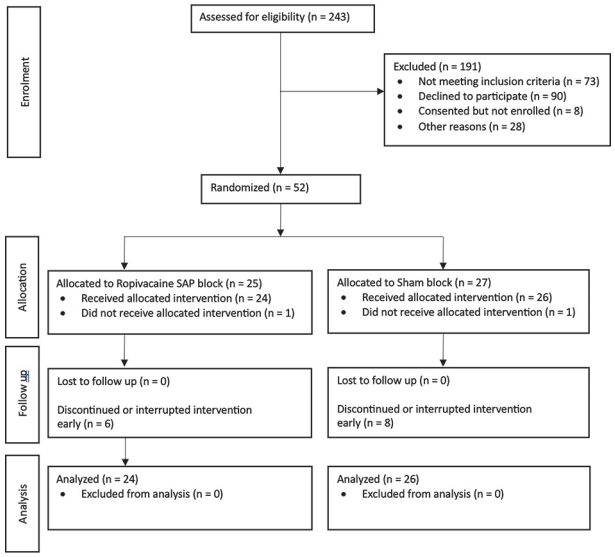
Background and Aims Moderate to severe pain is common after cardiac surgery, peaking during the first and second post-operative day. Several nerve blocks for sternotomy have been described, however the optimal location for continuous catheters has not been established. This study sought to assess the feasibility of a larger trial assessing the efficacy of serratus anterior plane (SAP) catheters for sternotomy pain.

Methods This was a double-blinded trial including patients undergoing cardiac surgery via sternotomy. Bilateral SAP catheters were placed in all patients, randomized to Ropivacaine or placebo. Feasibility was assessed based on pre-determined endpoints: 1. Average recruitment rate >4 per month; 2. Protocol adherence rate >90%; 3. Primary outcome measurement rate >90%; 4. Major catheter-related adverse event rate >2%. Quality of recovery index (QoL-15) was compared using an independent t-test.

Results Fifty-two patients were randomized with feasibility data for 50 (2 were withdrawn). There was a poor recruitment rate (2.4 patients per month). There were no major protocol deviations but there were minor deviations in 12% of patients. The primary outcome (QoL-15) was measured in 96% cases. QoL-15 at 72 hours was not different between groups (Ropivacaine 100 +/- 22 vs Placebo 97 +/- 18, p=0.63). The overall incidence of pneumothorax was found to be 12%.



Abstract EP180 Figure 1 Consolidated standard of reporting trial (CONSORT) flow diagram for Cardiac-SAP trial

Conclusions A single-center RCT was deemed to be not feasible due to low recruitment rate. It was unclear if the

pneumothorax was related to the block since there was not a no-block group. This factor needs to be explored before considering the possibility of a multi-center study.

_REB approval 2021.06

ePoster session 6 – Station 1

EP181 IMPLEMENTATION OF A CHEST INJURY PATHWAY IN THE EMERGENCY DEPARTMENT

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Background and Aims Rib fractures represent a substantial health burden. Chest injuries contribute to 25% of deaths after trauma and survivors can experience long standing consequences, such as reduced functional capabilities and loss of work. Over recent years there has been an increase in awareness of the importance of early identification, aggressive pain management and adequate safety-netting for these patients. Poor management leads to increase rates of morbidity and mortality. Aim: Development of an evidence based, multidisciplinary chest injury pathway for the management of patients presenting with rib injuries in the Emergency Department

Methods We used Plan Do study Act cycles as a framework for our quality improvement project. Patients' note presenting with torso trauma were reviewed from march to June 2021. Our five Specific, Measurable Actionable Realistic and Timely (SMART) measures were: analgesia on arrival, time to analgesia, fascial block performed, discharge leaflet given and compliance with the pathway.

Results Implementation of the pathway increased rates of documented analgesia received from 39% to 70%. The number of regional blocks performed went from 0% to 60% and the number of patients receiving discharge advice went from 7% to 70%. The use of the pathway by doctor and nurses was 63%.

Conclusions This quality improvement project involved the development of a multidisciplinary pathway for patients presenting to the Emergency Department with rib fractures in order to drive a change from previous practice. The quality of care provided to patients attending with rib fractures showed improvement with increases in analgesia received, blocks performed, and discharge advice given.

EP182 REDUCING LOCAL ANAESTHETIC CATHETER DISPLACEMENTS: A BENCH TOP STUDY OF OPTIMUM MEANS OF CATHETER FIXATION

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10.1136/rapm-2023-ESRA.243

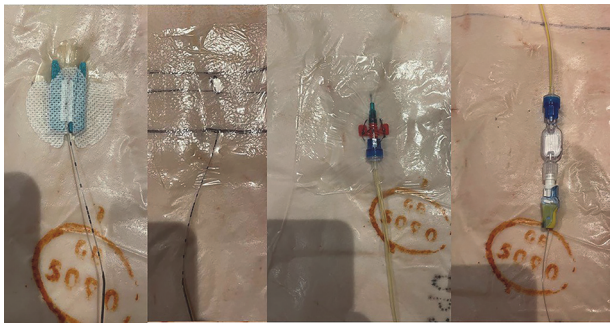
Background and Aims Local anaesthesia (LA) nerve infusions are increasingly used in our institution for rib fracture analgesia; they provide not only excellent analgesia but reduce morbidity, mortality and improve economic outcomes [1]. Data from a local audit demonstrated 33% of rib fracture LA infusions were prematurely removed due to accidental disconnection. Currently there is no consensus on the optimum method of securing LA catheters in place [2]. Accordingly, we aimed to reduce rates of catheter disconnection through a benchtop experiment to determine the optimal LA catheter fixation method.

Methods We used a porcine abdominal wall model (figure 1) to determine the force required to displace catheters secured using seven methods (table 1). We used our in-service wingless catheter-through-needle system (Pajunk), except when examining suturing strength, where a Vygon arterial line with suturing wings was used. The force required to displace the catheter by 1cm from the skin was measured. Each method was repeated 5 times. Data was analysed using parametric tests.

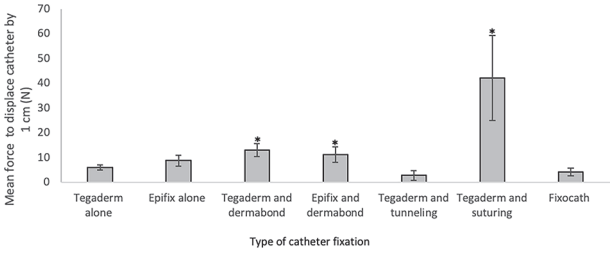
Results Catheters secured using Tegaderm and Dermabond (13.04 N, p=0.0004), Epifix and Dermabond (11.18 N, p=0.007) and Tegaderm and suturing (42.18 N, p=0.001) required significantly more force to displace than those using Tegaderm alone (5.94 N)(figure 2).

Abstract EP182 Table 1 A table demonstrating different methods used to secure local anaesthetic catheters in situ, using a porcine abdominal wall model

Device type	Name
Transparent film dressing only	Tegaderm
Film dressing and polyacrylate glue	Tegaderm + Dermabond
Film dressing with catheter tunnelling	Tegaderm+ tunnelling
Film dressing and catheter suturing	Tegaderm + suture (Softsilk, 2-0)
Epidural catheter fixation device 1	Epifix
Fixation device 1 + glue	Epifix + Dermabond
Epidural catheter fixation device 2	Fixocath



Abstract EP182 Figure 1 Photographs depicting local anaesthetic catheter fixation methods, in situ, on a porcine abdominal wall model



Abstract EP182 Figure 2 A bar chart illustrating the mean force (newtons) required to displace local anaesthetic catheters secured on a porcine abdominal wall model using different methods of fixation. Error bars represent +/- 1 standard deviation. Statistical significance was analysed with ANOVA and post hoc t-tests (*P<0.01)