

#35921 ULTRASOUND GUIDED REGIONAL ANAESTHESIA IN RURAL INDIA: A BOON FOR TIDING OVER HIGH RISK TRAUMA CASES

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Please confirm that an ethics committee approval has been applied for or granted: Not relevant (see information at the bottom of this page)

Application for ESRA Abstract Prizes: I apply as an Anaesthesiologist (Aged 35 years old or less)

Background and Aims The use of ultrasound for precise delivery of local anaesthetics has been a breakthrough in the field of regional anaesthesia. However, it has still not found its place in many small towns of the developing nations. Lack of trained anaesthesiologists, inaccessibility to the required armamentarium and resistance from surgeons are prime factors responsible for the same. Our aim was to establish ultrasound guided regional anaesthesia (UGRA) as a standard of care in an orthopaedic centre in rural India where it was never used as an anaesthetic technique.

Methods This is a retrospective analysis of 312 patients with upper limb trauma operated under ultrasound guided regional anaesthesia (UGRA) between January 2022 to April 2023. We assessed the effectiveness of the block using pain scores at rest and on movement, the need for rescue anaesthesia and perioperative outcome in these patients.

Results A total of 312 patients received UGRA in this study. 58% of the patients were ASA grade 1 and 2. 42% patients came under ASA grade 3 and 4. 30% patients from ASA 1 and 2 categories required additional conscious sedation in the intraoperative period. However, none of the patients from the ASA 3 and 4 required any sedation and were done solely under USGRA.

Conclusions 1. USGRA proves to be a safe and reliable choice of anaesthesia in high risk cases if appropriate equipments and expertise are available. 2. Confidence, Competence and Conviction can help this state of art technique to penetrate in areas where it has still not found its way.

#36405 THE PARAVERTEBRAL SPACE: AN UNEXPECTED DISGUISE

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Background and Aims The presence of a pleural effusion can present challenges during the performance of paravertebral block (PVB) under ultrasound (US). PVB is a regional anaesthetic technique used in thoracic surgery for perioperative and postoperative analgesia. In our centre, we have performed PVB in patients with pleural effusions undergoing pleural

drainage and diagnostic video-assisted thoracoscopic surgery. In doing so, we have discovered that the US image of the chest is altered in these patients. We wish to demonstrate this finding as it affects the performance of a successful PVB.

Methods Patients with a pleural effusion undergoing thoracic surgery underwent a US-guided PVB in sagittal orientation with a 12MHz linear transducer. Images were taken before and after PVB injection of local anaesthetic (LA).

Results On US imaging, the presence of a pleural effusion has the appearance of the paravertebral space on first inspection: a dark hypoechoic space bounded by 'bright' pleural borders. In one patient this was confirmed by inadvertent aspiration of pleural fluid. On closer inspection, the paravertebral space is more superficial and hyperechoic than normally anticipated. The injection of LA injection into the true paravertebral space renders the borders more prominent.

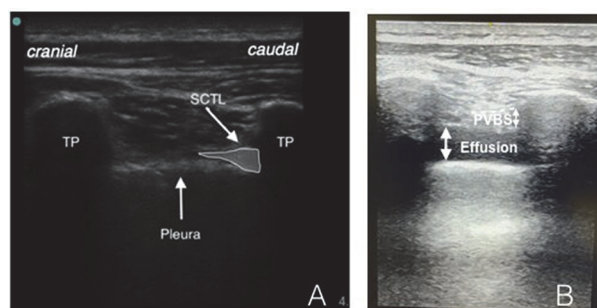


Fig 1. US sagittal view of paravertebral block anatomy. A) Typical sonoanatomy for PVB. B) Sonographic appearances of PVB with presence of pleural effusion (post LA injection); TP (transverse process), PVBS (paravertebral space), SCTL (superior costotransverse ligament). Dashed white line denotes SCTL.

Abstract #36405 Figure 1 US sagittal view of PVB anatomy comparing normal (A) with pleural effusion (B)

Conclusions We demonstrate that a pleural effusion may be mistakenly identified as the paravertebral space when performing an US-guided PVB. The true paravertebral space is more superficial and becomes more prominent after injection into the space. Misidentification of the space may result in suboptimal block efficacy, limitation of local anaesthetic spread, inadvertent needling of effusion, haemothorax and infection.

#35972 INTRA-OPERATIVE BLOCKS FOR HIP FRACTURE SURGERY – HOW ARE WE DOING AT OPTIMISING ANALGESIA FOR PATIENTS?

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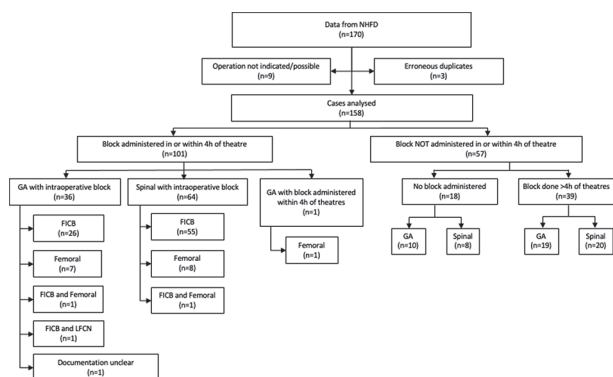
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Background and Aims Hip fractures are the commonest reason for older patients presenting for emergency surgery (1) and are extremely painful (2). National guidelines recommend routine performance of supplementary nerve blocks alongside general/spinal anaesthesia (GA/SA respectively) (3). We aimed to evaluate departmental practice and identify areas for improvement.

Methods A retrospective audit was undertaken following local audit committee approval. Data were obtained from the National Hip Fracture Database (NHFD) spanning one year (Jan-Dec 2022), patients who underwent surgical intervention were included. Electronic records were analysed for: anaesthesia type; intra-operative nerve block performance; and block conduct.

Results 158 cases were identified. 64% received a block alongside GA/SA, majority were fascia iliaca blocks (85%). Others included femoral/lateral femoral cutaneous nerve of the thigh blocks. 89% were performed under ultrasound guidance, and most anaesthetists utilised bupivacaine as a sole agent. Block rates did not vary significantly between weekdays/weekends nor months of the year. Few documented reasons for not administering a block, these included: patient refusal, delirium, and anticoagulation.



Abstract #35972 Figure 1

Conclusions Compared to 2021 national data (4), our institution has a higher rate of intra-operative block performance for patients receiving SA (70% versus 44%), being similar for GA (55% versus 58%), potentially due to block analgesia facilitating SA positioning. Anticoagulation does not preclude performing superficial blocks (5), however the true extent of this being erroneously regarded as a contraindication is unknown due to lack of documentation. There is a role for surveying departmental attitudes and knowledge towards block performance, and providing teaching sessions involving contemporary technology such as needling simulators.

Attachment References.pdf

#35967 NERVE STIMULATION IN NERVE BLOCKS: A STILL USED TECHNIQUE, BUT INCREASINGLY RARELY. AN OPPORTUNITY TO REDUCE ENVIRONMENTAL IMPACT IN A TERTIARY CENTRE IN THE UK?

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Background and Aims With the introduction of ultrasound, the use of nerve stimulation to verify positioning in regional anaesthesia has become increasingly rare. Currently, needles

provided as standard include an attachment to facilitate this. This attachment contains plastic and valuable metals, including copper wiring, which is ultimately discarded unused. We therefore performed a survey in our tertiary centre to assess their use.

Methods The survey was delivered to the majority of anaesthetists within Nottingham University Hospitals Trust (n=70). This involved an online questionnaire on the frequency, indications and confidence in using nerve stimulation for nerve blocks.

Results 60% of respondents were consultants and 71% of respondents stated that they would never use nerve stimulation for nerve blocks. Within the survey 21% had never used this technique and the remaining 79% showed an average time since last use of greater than 2 years. The free text answers demonstrated that many feel nerve stimulation has become unnecessary in most settings with the availability of high-quality ultrasound. However, some consultants felt that in cases where visualisation of deep tissues is challenging, this technique may be useful.



Abstract #35967 Figure 1 Last use of nerve stimulation graph, photos of needle equipment assembled and disassembled and box to demonstrate the environmental impact

Conclusions This survey demonstrates that, as expected, the use of nerve stimulation in every day practice is minimal, however, there may still be a role for nerve stimulation in certain situations such as deep blocks or obese patients. Given how infrequently nerve stimulation is used there would be a clear environmental and possible economic benefit to sourcing needles without this nerve stimulation attachment as standard.

#36017 COMPARISON OF ULTRASOUND GUIDED FEMOROSCIATIC NERVE BLOCK VERSUS EPIDURAL ANALGESIA FOR POST- OPERATIVE ANALGESIA FOLLOWING EXCISION OF KNEE TUMOURS – A RCT

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