

the pain remained controlled with oral medication only. Phantom pain never recurred during the one-year follow-up.

Conclusions Peripheral nerve blocks are valuable techniques in phantom pain management. A single-shot nerve block may relieve phantom pain for an extended period and allow patients to return to work.

B404 INTERVENTIONAL TREATMENT OF CHRONIC PAIN IN PATIENT AFTER THORACOTOMY APPROACH CASE REPORT

¹A Dimitrovski*, ¹M Toleska Doneska, ¹B Kuzmanovska, ²N Toleska Dimitrovska, ³A Trajanovski, ¹M Mojsova Mijovska, ¹F Naumovski. ¹Ss.Cyril and Methodius Univesiry – Skopje/TOARILUC – KARIL, Skopje, North Macedonia, The Republic of; ²Ss.Cyril and Methodius Univesiry – Skopje/UK for Thoracic and vascular surety, Skopje, North Macedonia, The Republic of; ³Ss.Cyril and Methodius Univesiry – Skopje/TOARILUC, Skopje, North Macedonia, The Republic of

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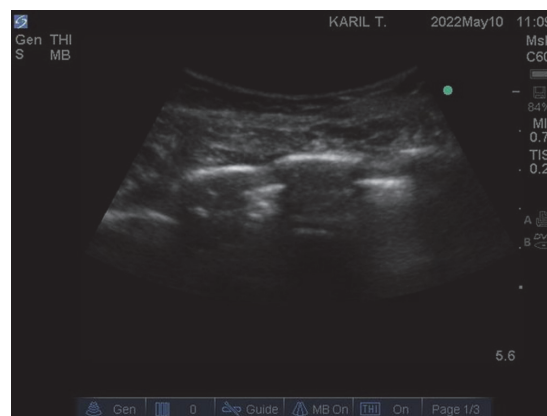
Background and Aims Open thoracotomy is accompanied by severe postoperative pain. In 5–65% of patients who undergo rib retraction during surgery there is intercostal nerve damage, which will lead to chronic intercostal pain^{1,2}.

Ultrasound guided ntercostal block is an effective method of interventional treatment of this type of pain.³

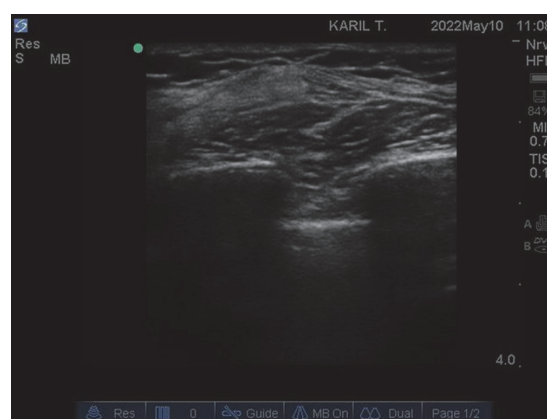
Methods We will describe a case of a 56-year-old patient who underwent open thoracotomy 4 years ago due to surgical treatment of lung cancer. Postoperatively, the patient had chemotherapy and radiotherapy. Also, postoperatively, intercostal pain occurred at the site of thoracotomy, which extended to the anterior thoracic wall and mamilla of the mammary gland. The patient described the pain as severe burning. He was initially treated by an oncologist with non-steroid anti-inflammatory drugs, opiates but the pain only subsided, never disappeared. Methadone tolerance developed which the patient has been taking in drops for 4 years and the patient was extremely incapable of performing everyday activities. During ultrasound examination we found that there was a significant narrowing of the intercostal space at the site and level of thoracotomy (Figure 1 and 2). We performed ultrasound guided intercostal block and applied 5 ml of bupivacaine 0.5% and 4 mg of dexamethasone. (Figure 3)



Abstract B404 Figure 1



Abstract B404 Figure 2



Abstract B404 Figure 3

Results Within 15 minutes after performing the block, the patient's pain completely subsided. The patient was followed for a period of 30 days, he reported no pain and subsequently did not use analgesics at all.

Conclusions Ultrasound-guided intercostal block applied with a small volume of local anesthetic and corticosteroid is an effective treatment for chronic intercostal pain.

B405 CUMULATIVE RADIATION DOSE EXPOSURE IN FLUOROSCOPY-GUIDED EPIDURAL INTERLAMINAR LUMBAR STEROID INJECTIONS

¹V Dzabijeva*, ²I Logina, ¹S Petronis, ¹A Gomonecs. ¹Rigas 2nd Hospital, Riga, Latvia; ²Riga Stradins University, Riga, Latvia

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Background and Aims Fluoroscopy-guided epidural interlaminar steroid injections (FEISI) widely used for managing low back pain (LBP). There is lack of data on cumulative radiation dose (CRD) in patients receiving more than one FEISI (1).

it is very important to determine CRD for three consecutive FEISI and to define factors that correlate with higher dose area product (DAP) or prolong fluoroscopy time (FT).

Methods Three groups of patients: LBP duration for one, two and more than two years. One-way ANOVA and independent t-test used to compare FT.

Results 64 females and 36 males (mean age 51 y.o.), mean LBP time 2.1 years. Mean cumulative DAP 833.54cGym2 (SD 266.32), mean FT 62.23s (SD 13.22s); strong positive correlation between FT and DAP ($r=0.545$; $p=0.01$). Mean FT during 1st procedure 18.1s, 2nd - 20.7s, 3rd - 23.43s. Mean DAP during 1st procedure 226.24cGym2, 2nd - 257.33cGym2, 3rd - 349.97cGym2. FT and DAP positively correlate in each group. First epidural steroid injection time $p=0.750$, 2nd 0.767, 3rd 0.682 ($p=0.01$). First FT was longer in LBP for more than 2 years ($p=0.05$) $n=38$ (mean 25.4s); LBP less than 1 year $n=36$ (mean 22.51s) and LBP from 1-2 years $n=26$ (mean 14.32s). Mean DAP was higher during 3 procedures and LBP longer than 5 years ($p=0.05$).

Conclusions DAP is in uphill linear relationship with FT. Mean cumulative dose is 57 times lower than radiation dose for FEISI allowed by Society of Interventional Radiology of Europe. Patients with longer LBP have longer FT and higher DAP, probably due to severe degenerative spinal lesions.

Point-of-care ultrasound use (POCUS)

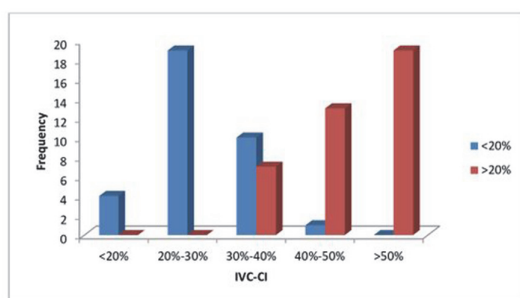
B406

PREOPERATIVE BEDSIDE ULTRASOUND GUIDED INFERIOR VENACAVA COLLAPSIBILITY INDEX AS A GUIDE TO PREDICT HYPOTENSION FOLLOWING SPINAL ANESTHESIA IN PATIENTS SCHEDULED FOR ELECTIVE SURGERY

¹SGK Bhat*, ¹M Mukund, ²G Bhat, ¹H Hegde, ¹S B. ¹Yenepoya Medical College, Mangalore, India; ²K S HEGDE MEDICAL ACADEMY, Mangalore, India

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Background and Aims Spinal anesthesia is the most commonly employed anesthetic technique for infraumbilical surgeries. Post spinal hypotension is a commonly encountered complication which can lead to organ hypoperfusion and ischemia. Severe episodes of intraoperative hypotension have been proposed as an independent risk factor in the development of postoperative adverse outcomes and prolonged hospital stay. However there are no reliable methods to determine which patients are at risk for spinal induced hypotension. This study investigated whether preoperative ultrasound guided inferior venacava collapsibility index (IVC-CI) could predict hypotension following spinal anesthesia.



Percentage fall in MAP among the subgroups of IVC-CI within 30mins

Abstract B406 Figure 1

Methods After the approval of ethics committee, preoperative ultrasonography was done to determine the IVC-CI in 73 patients undergoing elective surgeries under spinal anesthesia. All ultrasonographic examinations were performed by the same anesthesiologist. Baseline heart rate, systolic blood pressure, diastolic blood pressure and mean arterial blood pressure were recorded prior to spinal anesthesia and also every 5 minutes following spinal anesthesia for 30 mins. Amount of mephentermine administered was also recorded.

Results Operative procedures included 52 orthopedic and 22 general surgeries. 53.4% of all patients had significant hypotension post spinal anesthesia. 100% of patients with a IVC-CI $\geq 50\%$ had significant hypotension compared to 37% with a IVC-CI $< 50\%$, $p=0.004$. IVC-CI $\geq 50\%$ has a specificity of 100% (95%CI, 64.29%-90.26%) and sensitivity of 48.72% (95%CI, 52.06%-81.28%) in predicting post spinal hypotension.

Conclusions Patients with IVC-CI $\geq 50\%$ were more likely to develop significant spinal induced hypotension.

B407

PORK BELLY AS A MEDIUM FOR TEACHING US GUIDED VENOUS ACCESS AND NEEDLING

N Elahi*. University College London Hospital, London, UK

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Background and Aims The use of ultrasound in clinical practice is growing. However, when teaching US guided needling and venous access, providing hands on practice can be challenging. We tested various commonly available substances to ascertain suitability for use in teaching US guided techniques.

Methods We chose to test the suitability of 3 substances (pork belly, tofu and chicken breast) for use in practice of US guided venous access and needling.

The substances were assessed for 1) Ease of insertion of giving set/epidural infusion catheter (using tuohy needle)

2) Quality of US image

3) Ease of insertion of needles

The giving set/epidural infusion catheters were connected to bags of saline with red dye added to create a target for cannulation or for avoiding when practicing needling. The target audience for the teaching sessions was junior doctors (first and second year).



Abstract B407 Figure 1

Results 1) Pork belly provided the highest quality US images, likely due to its multi-layered nature. It was also robust on needling/cannulation once giving set had been inserted but it was somewhat challenging to insert due to the toughness of the tissue in its uncooked state.

2) Tofu provided good US penetration but was almost impossible to insert giving set or needle into it without disintegration.