

spinal needle. The appearance of neurologic symptoms like sudden headache in patients undergoing epidural or spinal anaesthesia suggests the possibility of pneumocephalus.

### 65 TAYLOR'S APPROACH TO SUBARACHNOID BLOCK IN AN ELDERLY PATIENT: A SOLUTION AFTER FAILED CONVENTIONAL APPROACH

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**Background and Aims** The execution of spinal anaesthesia in elderly patients can be difficult due to several anatomical degenerative alterations.

Taylor's approach for neuraxial anaesthesia is a safe, yet rarely used, alternative with a high success rate and might be useful specially in elderly.

**Methods** A 92-year-old female patient, ASA III, was scheduled for an urgent dynamic hip screw after left trochanteric fracture. After obtaining informed consent, an ultrasound-guided fascia Iliaca block was performed with 30 ml of 0,25% Levobupivacaine.

Subarachnoid block, using 27G and 25G Quincke® needle, with the median and paramedian approach was attempted unsuccessfully by two anesthetists at the level of L2-L3, L3-L4 and L4-L5 as the needle hit bone in all directions.

We decided one last attempt using Taylor's approach and the spinal needle was inserted in a cephalo-medial direction, 1 cm medial and 1 cm caudally to the Posterior Superior Iliac Spine, the L5-S1 space was targeted and cerebrospinal fluid was obtained.

**Results** A satisfactory spinal block was achieved, which allowed surgery to proceed without complications. Patient's hemodynamics were stable throughout the entire procedure and no adverse events were registered in the intraoperative nor post-operative period.

**Conclusions** The L5-S1 intervertebral space is usually the biggest one and targeting it (Taylor's approach) might be useful in patients with degenerative changes as it may present an easier way to reach the subarachnoid space.

### 66 SPINAL ANESTHESIA IN LAPAROSCOPIC CHOLECYSTECTOMY IN A PATIENT WITH CONGESTIVE HEART FAILURE WITH REDUCED EJECTION FRACTION

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**Background and Aims** Laparoscopic cholecystectomy (LC) is relatively common procedure which is generally performed under general anaesthesia. However in some specific cases, regional anaesthesia can be considered as a good choice for patients who are poor candidates for general anaesthesia due to comorbidities. In this case we present laparoscopic cholecystectomy under spinal anaesthesia successfully performed in patient with anaesthetic problems include HFrEF and COPD

**Methods** A 68-year old, ASA III male patient underwent laparoscopic cholecystectomy. He had been diagnosed COPD, and heart failure with ACC/AHA stage III, NYHA score IIIa. He is



Abstract 66 Figure 1

former smoker and overweighted. He had coronary revascularization 10 years ago. In echocardiography septal hypokinesia, left ventricle dilation with 3,8\*1,6 cm thrombus in anterior wall of left ventricle. EF was 33%. On ECG heart rate was 78 bpm with Q wave and negative T wave on V3-V6 leads. Cardiology consultation reported a postoperative risk of 7% based on modified Goldman cardiac risk criteria.

**Results** Upon arrival at the operating room routine monitoring was established. Patient sat upright position and 27G spinal needle was used to enter the subarachnoid space at the T10-T11 intervertebral space under complete aseptic technique. Hyperbaric bupivacaine 0.5% 2 ml, 0.005% 0.4 ml was injected so that a sensory loss up to T3 dermatome was achieved. LC was smooth and uneventful

**Conclusions** Patients with very low EF% are considered to be high risk for general anaesthesia due to irregular heartbeat. Spinal anaesthesia can be safe anaesthetic method to be used in patient with advanced cardiopulmonary disease by experienced and qualified anaesthesiology team.

### 67 SUBARACHNOID BLOCK WITH LUMBAR ULTRASOUND IN GERIATRIC PATIENTS: PRELIMINARY STUDY RESULTS

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**Background and Aims** We aimed to evaluate the benefit of lumbar ultrasonography in predicting the needle depth before the block and determining the most appropriate entry point in geriatric patients.

**Methods** Twenty geriatric patients who were to undergo TUR-P/M operation with subarachnoid block were received to study after hospital ethics committee. Lumbar ultrasonography was performed to determine the L3-L5 interspinous space by same anaesthesiologist in sitting position. The distances between skin-subdural distance were measured in both sagittal and transverse planes. The distance reached by needle after procedure and the duration of procedure were measured.

**Results** The mean age of the patients was 69.4, height 166.1 cm, and weight 73.9 kg. Thirteen were men and seven were women. Twelve patients with ASA-II, 8 patients with ASA-III. The probe was used as transverse in half of the patients and sagittal in half. The procedure time was 3.3, the distance measured by USG was 5.09cm, and the applied needle distance was 5.66cm. The results were considered to be correlated between the distance measured by USG and the distance measured with the needle. There was no difference between

the groups between transverse and sagittal use in terms of procedure time, distance measured by USG and applied needle. It was found that the distance measured by USG was approximately 1 cm lower than the needle measurement applied.

**Conclusions** We think that in the determination of the intervertebral space before subarachnoid block, in geriatric patients with concomitant disease, ultrasound localization is easy and reliable and will increase patient comfort.

68

### 1% CHLOROPROCAINE SPINAL ANESTHESIA FOR SHORT DURATION SURGICAL PROCEDURES

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**Background and Aims** While permitting complete surgical anesthesia, subarachnoid blocks for ambulatory surgery are underused because of risk for urinary retention and delayed recovery of motor functions [1]. 1% Chloroprocaine is a fast onset and offset drug, which allows rapid recovery [2].

We report our experience with different short-duration surgical procedures.

**Methods** With the patients' consent, 60 short procedures were carried out under spinal anesthesia with 1% chloroprocaine, with a 27 pencil-point needle; different injection levels and dosages were used achieving different results.

Data regarded: type of procedures and duration; heart rate, blood pressure; pain; block level and Bromage score trends; complications.

**Results** Procedures: urologic n. 15; hysteroscopy n. 8; foot n. 11; hernia n. 12; knee arthroscopy and stem cell treatment n.7; pilonidal cyst n. 2; liposuction n.5.

Durations ranged between 15 and 80 minutes. Higher dosages (40–50 mg) lead to a decrease in blood pressure and heart rate when the injection level was L1-L2 or higher. IV Atropine avoids or restores physiologic heart rate. With lithotomy position, hypotension occurred less frequently. No patient experienced pain, with one exception of a hysteroscopy which received 30 mg at L2-L3 interspace. No complications were recorded. Levels and Bromage trends are displayed in table 1.

**Conclusions** Spinal anesthesia with 1% chloroprocaine is a valid technique for short surgeries. From our experience, we may assume that 35–40 mg administered between T12 and L2 provide a reliable block up to T9-T10 lasting 40 minutes and regressing within 90 minutes, without significant hemodynamic changes. Research trials are needed to confirm our data.

69

### AORTIC STENOSIS: IS REGIONAL ANAESTHESIA A STILL CONTROVERSIAL OPTION?

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**Background and Aims** Aortic stenosis (AS) requires tight haemodynamic control during surgery. Sudden decreased in systemic vascular resistances could be fatal, therefore, neuraxial anaesthesia (NA) is traditionally contraindicated. However,

evidence about this subject is sparse and the alternative of general anaesthesia (GA) may pose some troubles, especially in elderly patients with comorbidities.

**Methods** Female, 89-years, ASA IV, with hypertension, atrial fibrillation, severe AS and COPD, was admitted for hip fracture repair. We decided to perform a continuous spinal anaesthesia (CSA). Under standard ASA and invasive blood pressure monitoring, a 18G Tuohy needle was inserted, at L3-L4, into subarachnoid space and through it a 20G catheter was introduced 3cm into the space. After aspiration of cerebrospinal fluid, 5 mg of bupivacaine was administered in two divided doses with a 10-minute interval.

**Results** An adequate anaesthesia level at T10 was guaranteed throughout intraoperative. Hemodynamic parameters remained stable, with median arterial pressure superior to 80% of baseline, without vasopressor use. No additional bupivacaine was needed. Spinal catheter was removed before discharge of recovery and no post-dural puncture headache was detected.

**Conclusions** NA in severe AS is traditionally contraindicated due to sympatholytic effect that potentially lead to a diminished cardiac output. In our case, GA poses a great risk of morbimortality, due to patient age and comorbidities. By incremental minimal doses, CSA achieves a meticulous level and duration of block without excessive sympathectomy, while avoiding adverse effects of GA.

NA is no longer contraindicated in patients with AS, and CSA may even become the gold-standard for patients with multiple comorbidities.

70

### ABDOMINAL SURGERY IN HIGH-RISK CARDIOVASCULAR PATIENT – ANESTHETIC OPTION

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**Background and Aims** Continuous spinal (CSA) comparing to spinal anesthesia offers advantages in patients with multiple comorbidities. Fractionation of doses allows to obtain a satisfactory sensory and motor block with lower total doses of local anesthetic and less hemodynamic collapse.

**Methods** 89-year-old female, ASA IV admitted for emergency hernioplasty due to strangulated umbilical hernia. She had Hypertension, Diabetes Mellitus, obesity, OSAS, stage IV CKD and heart failure.

She was polypneic, tachycardic and hypotensive. The airway assessment was poorly done due to the patient's lack of collaboration.

Given the severity of the patient's clinical situation, the surgical proposal, as well as the absence of criteria for admission to the ICU, we opted for CSA.

Caregiver's consent to anesthesia was obtained.

A Tuohy 18G needle was used in the L3-L4 space and the catheter was inserted 4cm into the subarachnoid space. 2.5 mg of 0.5% hyperbaric bupivacaine were administered through catheter, followed by 1 mL of saline. 5' and 10' after the first administration, 1.25 mg + 1.25 mg bupivacaine were administered, respectively. A satisfactory block at T7-T8 level was obtained. The surgery lasted 2.5 hours. At the end of the first and second hour after surgical incision, reinforcement was needed with 2.5 mg of 0.5% bupivacaine.