

anesthesia in specific populations, we believe that its safety in patients with AS should be formally evaluated.

### #34885 AN UNUSUAL COMPLICATION OF TSUI TEST: A CASE REPORT

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10.1136/rapm-2023-ESRA.339

**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 don't wish to apply for the ESRA Prizes

**Background and Aims** The Tsui test, also known as the epidural electrical stimulation test (EEST) is a simple, safe, and reliable method for objective assessment of correct thoracic epidural catheter placement with a sensitivity and specificity of 80-100% to 91.6-100%. Test uses low-amplitude electrical current applied to an epidural catheter and conducted through a column of saline to elicit a motor response

**Methods** We present a 61-year-old female, undergoing the repair of recurrent ventral incisional and parastomal hernia. After obtaining written consent the patient was positioned sitting on the bed. The epidural was placed at T9 level. A spring-loaded catheter was advanced without any resistance into the epidural space and Tsui test was performed to define the tip of the catheter. A positive motor response was detected at 3mA at patient's upper abdomen. Several seconds after initiation of nerve stimulation patient became bradycardic. Heart rate decreased from 61 to 38 bpm and blood pressure decreased from 153/78 to 92/38. Pacer spikes were noted on a monitor preceding each QRS complex. The patient remained bradycardic and did not recover immediately after the stoppage of electrical stimulation. Glycopyrrolate 0.2 mg was administered which improved the patient's symptoms. The patient tolerated the test dose and epidural throughout the course of her stay. The patient was discharged home without any complications on post op day 3rd.

**Conclusions** We suggest that immediate availability of rescue medications like glycopyrrolate, atropine, along with vasopressors in patients undergoing epidural catheter placement using Tsui test as additional safety measure should be followed routinely.

### #36004 ONCE IN A BLUE MOON: POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME AFTER AN HYSTERECTOMY UNDER GENERAL ANESTHESIA AND EPIDURAL ANALGESIA – CASE REPORT

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10.1136/rapm-2023-ESRA.340

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

**Background and Aims** Posterior Reversible Encephalopathy Syndrome (PRES) is characterized by neurological symptoms

and white matter edema on neuroimaging studies. While many etiologies and risk factors have been described, its pathophysiology remains unclear.

**Methods** A 50-year-old woman was admitted with an abnormal vaginal bleeding due to a large uterine fibroid causing severe anemia (Hemoglobin: 2g/dL). She was otherwise healthy. Over the next ten days, she received a total of five packed red blood cell units. Twelve days after admission, she was submitted to an uneventful hysterectomy under general anesthesia and epidural analgesia. Postoperative analgesia was maintained with ropivacaine 0,1% through an epidural drug infusion balloon at 5cc/h which was removed 48 hours after the procedure. Three days after surgery, she developed headaches and vomiting followed by altered mental status, focal neurological deficits and seizures. She was treated with anti-epileptic medication, supportive care and transferred to an ICU. Neuroimaging ruled out a stroke and revealed typical findings of PRES. Within a week the neurological deficits fully reversed and the patient was discharged from the hospital.

**Results** Although it is associated with hypertension, PRES is also linked to polytransfusion and.

**Conclusions** A wide array of etiologies and risk factors are associated with PRES and a literature review is required to better understand this syndrome in the perioperative period, including its relationship with central nerve blocks.

### #36239 ULTRA-LOW-DOSE CONTINUOUS SUBARACHNOID BLOCK IN HIP SURGERY: A CASE REPORT

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10.1136/rapm-2023-ESRA.341

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

**Background and Aims** Hemodynamic instability during general anesthesia or after neuraxial anesthesia in patients with severe cardiac disease is a major concern. Continuous spinal anesthesia offers the advantage to use lower dose of local anesthetic (LA) and titrate as needed while maintaining hemodynamic stability. In this report, we describe the use of ultra-low-dose continuous subarachnoid block for an urgent hip hemiarthroplasty.

**Methods** A 87-year-old male patient, ASA physical status IV, with hypertension, diabetes mellitus, hypercholesterolemia, severe peripheral arterial disease, symptomatic severe aortic stenosis (valvular area 0,72cm<sup>2</sup>) and disseminated prostate cancer. He was proposed to urgent hip hemiarthroplasty. The patient and his family were informed about the high risk of the procedure and the consent form was obtained. ASA standard monitoring with invasive blood pressure monitoring was established. A catheter was introduced 3 cm in the subarachnoid space with a paramedian approach and 10mcg of fentanyl and 2 mg of isobaric bupivacaine 0,5% were administered through the subarachnoid catheter.

**Results** The surgery was performed in the left lateral position and lasted 70 minutes without need for further intrathecal administrations. There was requirement for small boluses of ephedrine due to progressive blood pressure drop during the procedure. The catheter was removed in the PACU.

Postoperative period was uneventful and the patient was discharged after 4 days.

**Conclusions** In patients with severe cardiovascular disease, titration of lower doses of LA in continuous subarachnoid block allows a safer procedure.

**#36461 BAMBOO SPINE AND NEURAXIAL BLOCKADE – AN ANESTHETIC CHALLENGE IN SEVERE ANKYLOSING SPONDYLITIS**

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10.1136/rapm-2023-ESRA.342

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

**Background and Aims** Ankylosing spondylitis (AS) is a chronic, progressive inflammatory disease that affects the spine and sacroiliac joints. Disease spectrum may range from mild rigidity to bone fusion of the spine. Inevitably, neuraxial blockade may be technically difficult or impossible to achieve due to closed interspinous spaces and loss of flexibility. Tracheal intubation may also be difficult because of the involvement of cervical spine and temporomandibular joint. Cardiopulmonary complications are frequently present, demanding a careful pre-operative evaluation.

**Methods** A 69-year-old woman with a long history of AS presented for hip replacement surgery. The patient had a bamboo spine with accentuated thoracolumbar kyphosis and no mobility of cervical spine, which was fixed in a flexed posture. After positioning in right lateral decubitus, spinal anesthesia was achieved after 3 attempts, at L3-L4 interspace, paramedian approach, with a 25G Quincke needle. 9 mg of isobaric bupivacaine 0,5% and 2 mcg of sufentanyl were administered. Ultrasound guided femoral nerve block and lateral femoral cutaneous nerve block were previously successfully performed.

**Results** The sensory and motor blocks were adequate, and the patient remained hemodynamically stable thorough surgery.



**Abstract #36461 Figure 1** Positioning



**Abstract #36461 Figure 2** Cervical spine fixed

**Conclusions** AS presents significant challenges to the anesthesiologist, thus requiring a careful anesthetic planning. Regarding regional anesthesia, the major concerns are the difficulty of the technique, increased risk of complications and the unpredictable sensory and motor spread of the neural blockade. If general anesthesia is necessary, awake fiber optic intubation should be considered, and cardiopulmonary pathology held in consideration.

**#33940 COMPARING FLOW RESISTANCE BETWEEN THE NRFIT AND LUER CONNECTORS FOR DIFFERENT SPINAL NEEDLES**

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10.1136/rapm-2023-ESRA.343

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

**Background and Aims** NRFit connectors are 20% smaller and 3mm longer than standard Luer connectors [1]. Does switching to NRFit connectors from Luer connectors of the same manufacturer increase the perceived resistance to flow during aspiration and injection when performing spinal block? This study compares the flow resistance to water between: (a) Pajunk® NRFit versus Pajunk® Luer of the Sprotte® 24G x 90mm spinal needles. (b) Vygon® NRFit versus Vygon® Luer of the Whitacre® 25G x 90mm spinal needles.

**Methods** Thirty ward nurses who had never used these needles volunteered to test these spinal needles in a simulated practice. Each needle was primed with water and then attached to a 5 ml syringe containing 3 ml water. Using the same hand, each nurse was asked to aspirate 1ml from a glass filled with 10 ml water and then inject 3 ml under the water in the same glass. Unlimited attempts were permitted until they could determine the needle with the lowest resistance or if they felt that there was no difference in resistance between the two needles from the same manufacturer.