

**Background and Aims** Dexmedetomidine is a centrally acting alpha-2 receptor agonist has different beneficial effects when administered epidurally. This randomized controlled study was designed to demonstrate that epidural dexmedetomidine decrease total dose anesthetics during general anesthesia.

**Methods** 45 patients undergoing general anesthesia for elective colon resection due to cancer were randomly allocated into two groups. Gr.1 had 1 µg·kg<sup>-1</sup> dexmedetomidine epidural with ropivacaine 30 mg 25 minutes before induction to general anesthesia and Gr.2 was given fentanyl 100 µg with ropivacaine 30 mg. The depth of anesthesia was guided by BIS with target level between 40 and 60. The consumption of propofol, i.v. fentanyl and muscle relaxants were measured.

**Results** 22 patients with dexmedetomidine and 23 with fentanyl were enrolled in the study. Patients did not differ by age,  $p=0,7471$ . Duration of anesthesia in Gr.1 was  $171,7\pm 38$  min, and the Gr.2  $155,7\pm 45,4$ , ( $p=0,4902$ ). The dose of Atracurium was lower in Gr.1 ( $1,05\pm 0,3$  mg/kg) then Gr.2 ( $1,18\pm 0,4$  mg/kg),  $p=0,6796$ . Duration of awakening in Gr.1 was longer ( $16,4\pm 8,2$  min) than in Gr.2 ( $10,7\pm 2,6$  min),  $p=0,0555$ . BIS values in Gr.1 in the was  $41,1\pm 11$ , and in the Gr.2  $45,2\pm 10$ ,  $p=0,0004$ . The total dose of propofol was lower in Gr.1 ( $1,28\pm 0,2$  mg/kg) than in Gr.2, ( $1,77\pm 0,7$  mg/kg),  $p=0,0108$ . The total dose of fentanyl was less in Gr.1 ( $5,46\pm 4,4$  µg/kg), than in Gr.2 ( $8,73\pm 3,8$  µg/kg),  $p=0,0171$ .

**Conclusions** epidural dexmedetomidine decreases the doses of propofol and fentanyl during general anesthesia, but increases the duration of awakening time without increasing doses of muscle relaxants.

#34048 **THE OPTIMAL ANESTHETIC TECHNIQUE FOR HYSTERECTOMY ON A PATIENT WITH PROGRESSIVE EXTERNAL OPHTHALMOPLÉGIA WITH MYOPATHY AND ITS IMPACT ON THE MODE OF SURGERY**

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10.1136/rapm-2023-ESRA.319

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 mitochondrial disease (chronic progressive external ophthalmoplegia with myopathy) poses many challenges to the anesthetists as eyelid ptosis can be isolated or associated with laryngeal and respiratory muscles affections.

**Methods** We present a case a-47-year old female with CPEO with myopathy evaluated in anesthesia clinic for Laparoscopic subtotal hysterectomy, she had in addition to eyelid ptosis, difficulty swallowing and choking with liquids, nasal speech and weakness in her arms and pain cramps in her legs. She is also diabetic and hypertensive. Neurological consultation was done with recommendations to avoid paralytic agents and certain mitochondrial metabolized medications. Cardiac and IM consultation was carried out. The impact of her condition on anesthetic approach was discussed with the gynecologist and regional anesthesia was strongly recommended over general Anesthesia. Hence the patient was counseled, and the

procedure was changed to Laparotomy under CSE. The full anesthetic techniques were fully explained to the patient.

**Results** The intra-operative and postoperative remained uneventful and the patient shifted to PACU pain free.

**Conclusions** CPEO with myopathy present limitations to anesthetists. Choosing regional anesthesia with sedation gave a wide range of safety and made the challenging cases easier. Close communication and collaboration between the surgeon and anesthesiologist are essential to ensure the safe and optimal management of such cases.

#35837 **FAILED SPINAL COMPONENT DURING NEEDLE-THROUGH-NEEDLE COMBINED SPINAL-EPIDURAL ANAESTHESIA: TOTAL HIP AND KNEE ARTHROPLASTY DONE UNDER EPIDURAL ANAESTHESIA**

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10.1136/rapm-2023-ESRA.320

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**Background and Aims** Combined spinal-epidural (CSE) is a neuraxial technique where injection of local anaesthetic into the subarachnoid space and placement of an epidural catheter is performed in the same procedure.

**Methods** Case 1 is a 69-year-old female who underwent total knee arthroplasty. CSE was performed using a needle-through-needle technique with the B.Braun Espocan®. 18G Tuohy needle was inserted at L3/L4 in the midline in sitting position and advanced until loss of resistance to saline obtained. 27G spinal needle was inserted through Tuohy needle up to the maximal protrusion length, however no CSF was obtained. Epidural catheter was inserted and epidural anaesthesia initiated with 15mls 0.5% bupivacaine. Case 2 is a 63-year-old male who underwent total hip arthroplasty. CSE was performed with the same technique. Intrathecal component was not given as CSF was not flowing freely. Epidural catheter was inserted and epidural anaesthesia initiated with 18mls 0.5% bupivacaine.

**Abstract #35837 Table 1** Causes of failed spinal component in CSE

| Causes of failed spinal component in combined-spinal-epidural (CSE)   |
|---|
| Spinal needle may not protrude far enough beyond tip of Tuohy needle to pierce the dura   |
| Failure to enter the dura with small caliber needles that lack the rigidity to puncture the dura                                |
| Spinal needle exits Tuohy needle through the Tuohy curve instead of back hole   |
| Deviation from midline resulting in spinal needle missing the subarachnoid space laterally                                      |
| If loss of resistance to saline used, backflow of saline through the spinal needle may be mistaken for cerebrospinal fluid      |
| Movement of spinal needle during injection resulting in local anaesthetic only partially administered to the subarachnoid space |

**Results** Both patients underwent total knee and hip arthroplasty uneventfully under epidural anaesthesia in an operative time of 4 and 5 hours respectively.

**Conclusions** Failure of the spinal component in CSE in these cases are likely due to deviation from midline resulting in the spinal needle missing the subarachnoid space laterally or in the dural-arachnoid side wall. In both cases, after removal of the spinal needle, epidural anaesthesia was administered. Alternative rescue techniques would include threading the epidural catheter and performing subarachnoid block using a separate spinal needle at a different interspace; or repeating the CSE technique at the same or different interspace with direction of needle medially.

### #36218 SHEEHAN SYNDROME AND PELVIC FRACTURE – WHAT REGIONAL ANESTHESIA OPTIONS REMAIN?

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10.1136/rapm-2023-ESRA.321

**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** Sheehan syndrome (SS) is a form of hypopituitarism caused by pituitary gland infarction after severe postpartum hemorrhage (PPH), leading to variable degrees of pituitary hormone deficiency. Main anaesthetic concerns include electrolyte imbalance, hypocortisolism, hypothyroidism, hypotension, hypothermia and reduced drug metabolism. Regional anaesthetic techniques are usually beneficial in these patients in order to reduce hormonal stress response.

**Methods** An 80-year-old female patient, ASA III, was proposed for reduction and osteosynthesis of a pelvic fracture. The patient had a diagnosis of SS based on past history of severe PPH with subsequent lactation failure and an empty sella turcica, associated with adrenal insufficiency, hypothyroidism and hyponatremia. Other known diagnosis included dyslipidemia. Due to ventral decubitus positioning, duration and extent of surgery, general anaesthesia is usually indicated in major pelvic surgery and because a posterior surgical approach was elected, use of an epidural catheter wasn't recommended. We opted for total intravenous anaesthesia associated with a subarachnoid block to reduce metabolic stress response to surgery and minimize intravenous opioid use.

**Results** Perioperative management included early admission for preoperative hyponatremia correction with hypertonic saline and glucocorticoid supplementation with intraoperative hydrocortisone 100mg intravenous bolus followed by 50mg every 8h postoperative. Before anaesthesia induction a subarachnoid block was performed in the L4-L5 interspace with 2ml of 0,25% levobupivacaine and 100mcg morphine. Procedure and recovery were successful and uneventful.

**Conclusions** Adequate preoperative optimization is key in SS patients and the anaesthetic approach should be tailored to the patients' needs and surgical requirements, profiting from the synergistic interaction between general and regional anaesthesia.

**Attachment** PatientConsent.pdf

### #35790 SEGMENTAL THORACIC SPINAL ANESTHESIA FOR LAPAROSCOPIC CHOLECYSTECTOMY: A CASE REPORT

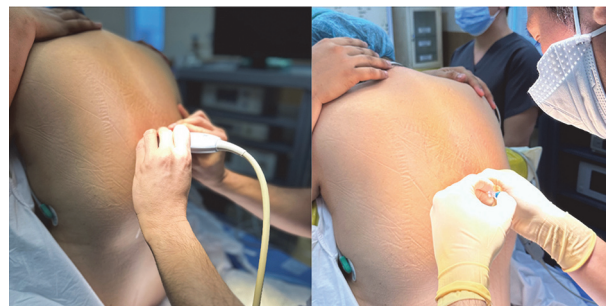
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10.1136/rapm-2023-ESRA.322

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

**Background and Aims** Laparoscopic cholecystectomy is a minimally-invasive surgery commonly by general anaesthesia. Literature suggests that the use of segmental thoracic spinal anaesthesia is an effective anaesthesia for these types of procedure and is known for adequate pain relief and reduced opioid requirements. This case report aims to discuss the application of segmental thoracic spinal anaesthesia for laparoscopic cholecystectomy.

**Methods** A 59-year-old ASA II female was scheduled for laparoscopic cholecystectomy. Segmental thoracic spinal anaesthesia was given using a mixture of Bupivacaine isobaric 5 mg and bupivacaine hyperbaric 2.5 mg, with the following adjuvants—Fentanyl 25 mcg, Ketamine 20 mg, and Dexmedetomidine 10 mcg injected slowly at the T8-T9 interspace using a gauge 23 spinal needle via midline approach. No recorded paresthesias or any problems during puncture or injection of anaesthetic were encountered.



**Abstract #35790 Figure 1** Prescanning and administration of thoracic spinal anaesthesia at T8-T9 interspace



**Abstract #35790 Figure 2** Stable vital signs and patient maintained comfortable during insufflation