

	CS	C6	C7	C8	T1	ST	MT	IT	SSN	PN	ASM	MSM	SCA	ShocN	IS
CAD1 (15 ml)	R														
	L														X
CAD2 (15 ml)	R														
	L													X	
CAD3 (7.5 ml)	R								X	X	X	X	X	X	
	L								X	X	X	X	X	X	X
CAD4 (7.5 ml)	R										X	X	X		
	L										X	X	X		
CAD5 (3.5 ml)	R	X						X	X	X	X	X	X	X	X
	L	X	X			X		X	X	X	X	X	X	X	X
CAD6 (3.5 ml)	R	X	X					X	X	X	X	X	X	X	X
	L	X	X			X		X	X	X	X	X	X	X	X

**Abstract EP063 Figure 2** Distribution of MBD in cadavers: numerical representation

**Conclusions** We propose the use of a single injection MT block technique using an injectate volume more than 7.5ml for an effective supraclavicular brachial plexus block.

**EP064 EFFICACY OF ERECTOR SPINE PLANE BLOCK IN TWO DIFFERENT APPROACHES OF LUMBAR SPINAL FUSION SURGERY**

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**Background and Aims** ESPB has shown variable efficiency. We evaluated the efficacy of ESPB in elective lumbar spinal fusion surgery patients with different surgical approaches

**Methods** Retrospectively 45 elective lumbar TPF patients with TLIF or TLIF+ALIF approaches were divided into 2 groups: general anesthesia (GA,n=24), general anesthesia with ESPB (GA+ESPB,n=21). Primary we analyzed efficacy of ESPB in terms of pain intensity in the first 48h. Secondary – fentanyl free patients and opioid consumption in the first 24h postoperatively. Comparative analysis (SPSS®v.28.0).P<0.05.

**Results** Out of 45 patients (27 female),21 received GA+ESPB and 24 GA. Average age was 60.3±14.3 years. ESPB was performed in 17 TLIF and in 4 TLIF+ALIF patients. ESPB significantly reduced pain intensity at rest in both approaches 48h after surgery; p<0.05. GA+ESPB when compare with GA increased the number of fentanyl free patients immediately after surgery in TLIF (77%vs.29%;p=0.01) and TLIF+ALIF (82%vs.0%;p=0.004) approaches. For those with ESPB fentanyl infusion was started in 6.8±3.2h (23.5% of TLIF) and 8.9±7.6h (75% of TLIF+ALIF) after surgery. ESPB shortened fentanyl infusion time when compare with GA with mean difference(MD) 3.2±4.2h in TLIF;p=0.045, 6.7±5.3h in TLIF+ALIF;p=0.028. Only in TLIF+ALIF approach, ESPB reduced total fentanyl consumption compared with GA 1.43±0.45mg/24h vs.0.93±0.68mg/24h;p=0.015.

**Conclusions** ESPB reduces pain at rest after lumbar fusion surgery and the number of patients requiring immediate postoperative fentanyl in both approaches, reducing the total fentanyl consumption and duration of infusion. However, application of ESPB not always provide enough analgesia to

completely avoid fentanyl administration after surgery in the first 48h.

**EP065 PNEUMOCEPHALUS WITH LATE PRESENTATION AFTER COMBINED SPINAL-EPIDURAL IN A PREGNANT WOMAN – A CASE REPORT**

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**Background and Aims** Pneumocephalus (PC), defined as presence of air in the intracranial space, is a rare complication of neuraxial techniques. We describe a case of a pregnant woman submitted to a combined spinal-epidural (CSE) technique who developed PC with late presentation.

**Methods** 16-year old pregnant woman, 41 weeks of pregnancy, asked for labor pain relief. A CSE with loss of resistance with saline (LORS) technique was performed. The epidural catheter (EC) was used for analgesia during labor work, with complete pain relief and no complications. 9 hours after, the patient was submitted to urgent cesarean section (CS) because of nonreassuring fetal status. Shortly after the anesthetic bolus via EC, the patient developed apnea, coma and anisocoria and was promptly intubated and ventilated. At the end of CS the patient woke up without neurologic deficits. Cerebral CT scan showed air densities in the right lateral and third ventricle. Bedrest and oxygen therapy was instituted. She developed postural headache treated with analgesia and was discharged 8 days after, fully recovered.

**Results** PC is often associated with identification of epidural space trough loss of resistance to air (LORA). However, in this case we used LORS. Also, she developed postural headache in the postoperative period, which suggests a dural lesion. The air entrance through the dural defect to the intracranial cavity, during the epidural bolus, seems to be the most likely mechanism of PC.

**Conclusions** PC usually manifests with headache and resolves spontaneously, however presentation can be atypical and surgical treatment may be necessary in cases of tension PC.

**EP066 A SYSTEMATIC REVIEW OF THE USE OF LOCAL ANAESTHETIC WOUND INFILTRATION BY SURGICALLY PLACED RECTUS SHEATH CATHETERS IN PATIENTS UNDERGOING ABDOMINAL SURGERY USING MIDLINE INCISION**

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**Background and Aims** This systematic review has been performed to assess the efficacy of post-operative analgesia using bolus infusions of local anaesthetic given via rectus sheath catheters in patients undergoing laparotomy via midline incisions.

**Methods** A PubMed search of the literature has been used to capture all the relevant publications. All studies where rectus sheath analgesia has been compared with placebo and with epidural anaesthesia have been analysed. The review has revealed that there is considerable variation in the

methodologies used in the published studies comparing rectus sheath and epidural analgesia and the majority are non-randomised observational studies. Some of the studies suggest that rectus sheath analgesia is less effective than epidural analgesia when assessed with post-operative pain scores and the need for additional opiate analgesia. Others suggest that rectus sheath analgesia gives equivalent pain relief to epidural anaesthesia. Some of the studies show that patients receiving rectus sheath analgesia mobilise quicker than those receiving epidural anaesthesia.

**Results** All the studies emphasise that rectus sheath analgesia is safer than epidural anaesthesia as it avoids the major complications that can occur with epidural anaesthesia, which include post-operative hypotension leading to anastomotic leakage, epidural haematoma, and epidural abscess formation. The literature shows that complications from rectus sheath analgesia are extremely rare.

**Conclusions** This systematic review has shown that although further prospective randomised studies are required, rectus sheath analgesia is safe and effective and should be used in preference to epidural anaesthesia in most patients undergoing laparotomy via midline incision.

## ePoster session 2 – Station 6

### EP067 SPECIFIC FEATURES SEDATION FOR REGIONAL ANESTHESIA DURING CESAREAN SECTION WITH SEVERE CORONAVIRUS PNEUMONIA

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**Background and Aims** Spinal and Epidural anesthesia (SA, EA) is the main type of anesthesia for caesarean section (SC). COVID-19 pneumonia which complicates the course of pregnancy, requires a rational choice of sedation and respiratory support to ensure SA and EA.

**Methods** The safe conduct of SA or EA was ensured by the temporary discontinuation of the use of heparinoids in the perioperative period. SA or EA was performed exclusively in the sitting position, then the patient was transferred to the horizontal position with the head end elevated by 30-45 degrees (depending on the needs). Respiratory support was used at all stages of preparation, performance, and administration of anesthesia: high-flow oxygenation (HFO) through nasal cannula or face mask, and non-invasive mechanical lung ventilation through the face mask. Maintenance of normotension was provided by intravenous boluses phenylephrine. Sedation was provided by intravenous bolus small doses of propofol or ketamine.

**Results** The above-described features of SA/EA were used by us during CS in 60 women in labor with severe coronavirus pneumonia. Compliance with the characteristics of SA/EA for CS by coronavirus pneumonia was expressed in the following: 1) half sitting at all stages of the perioperative period; 2) constant respiratory support, mainly HFO; 3) early transfer to

the pron-position in the postoperative period; 4) predominant use 25-50-75 mg ketamine (not propofol) for sedation. This approach ensured that there was no need to use general anesthesia for CS.

**Conclusions** Supplemented with HFO, ketamine, half-sitting SA or EA is the method of choice for CS in labor with severe coronavirus pneumonia.

### EP068 CROSS-SECTIONAL STUDY IN THE PREVALENCE OF LOW BACK PAIN EXPERIENCED AFTER DELIVERY WITH AND WITHOUT EPIDURAL ANALGESIA

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**Background and Aims** Epidural anesthesia has been optimal for pain management in obstetric anesthesia for over 20 years. This anesthetic is placed between L3-L4 of the lumbar region, it allows expecting mothers to be anesthetized from the lower back to the upper portion of the legs. Spinal nerves are numbed which blocks the pain signals, but pressure sensation is present. Through various research studies, it has come to light that women have suffered from lower back pain post-delivery. Our goal is to determine the correlation between epidural anesthetic and chronic lower back pain in women who have given birth.

**Methods** Cross sectional study comparing data presented in six different studies ranging from 1990 through 2019. Studies were selected using The National Library of Medicine media sources. Sources used had more than 6,000 patients total and also included criteria that evaluated the presence of an epidural and pain patients felt in the lower back. Excluded from these studies were time frames in which results from surveys for back pain were obtained vary significantly between studies.

**Results** Based on the obtained data from previous research studies, it cannot be determined if an epidural is the main cause of lower back pains in women postpartum. The graphs demonstrate no significant difference between women who had an epidural and those that did not receive an epidural.

With epidural		% with back pain	Details
Year	1990	18.2	5,744 total patients. 4988 patients delivered pregnancy normally with epidural. 200 of these experienced back pain in this study.
	1993	17.8	158 total patients. 100 patients had epidural and experienced back pain. Unclear what the total number of patients who received epidurals was regardless of pain.
	1996	19	400 total patients. 319 of those received epidural and 24 experienced back pain.
	2002	20.9	308 total patients. 150 patients received epidural and of these 70 "did experience pain now"
	2014	3.9	230 total patients. 9 patients received epidural and experienced back pain "3 months postpartum". Unclear what the total number of patients who received epidurals was regardless of pain.
	2019	15.4	42 total patients. 24 patients received epidurals and 13 of those experienced back pain.
With no epidural		% with back pain	Details
Year	1990	10.2	5,744 total patients. 4988 patients delivered pregnancy normally with out epidural. 474 of these experienced back pain in this study.
	1993	11.7	158 total patients. 47 patients had no epidural and experienced back pain. Unclear what the total number of patients who did not receive epidurals regardless of pain.
	1996	6.9	400 total patients. 131 patients had no epidural and 9 of those experienced back pain.
	2002	22.3	308 total patients. 150 patients had no epidural and of these 70 "did experience pain now"
	2014	11.3	230 total patients. 26 patients had no epidural and experienced back pain "3 months postpartum". Unclear what the total number of patients who did not receive epidurals regardless of pain.
	2019	15.4	42 total patients. 14 patients had no epidural and 6 of those experienced back pain.

Abstract EP068 Figure 1 Data collection

With epidural		% with back pain	Details
Year	1990	18.2	5,744 total patients. 4988 patients delivered pregnancy normally with epidural. 200 of these experienced back pain in this study.
	1993	17.8	158 total patients. 100 patients had epidural and experienced back pain. Unclear what the total number of patients who did not receive epidurals was regardless of pain.
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	2019	15.4	42 total patients. 14 patients had no epidural and 6 of those experienced back pain.

Abstract EP068 Figure 2 Data collection