

avoid a specific type of anesthesia technique. We sought to determine if neuraxial anesthesia use during TKA/THA differed among those previously diagnosed with multiple sclerosis or myasthenia gravis in comparison to the population without the diseases.

Methods This study is approved by Hospital for Special Surgery Institutional Review Board (IRB# 2016-436). We analyzed patients undergoing a TKA/THA procedure using the Premier Healthcare Database. We created individual multivariable logistic regression models to compare patients with multiple sclerosis or myasthenia gravis to the non-diagnosed population.

Results We identified 2,184,193 patients undergoing a TKA/THA procedure, with 7,559 having a preoperative diagnosis for multiple sclerosis and 3,176 for myasthenia gravis. Neuraxial use among patients with pre-existing multiple sclerosis was lower (OR: 0.62, $p < .0001$) than the non-diagnosed population (Table 1). Neuraxial anesthesia use among patients with pre-existing myasthenia gravis was not significantly different than use among the non-diagnosed population (OR: 1.05, $p = 0.2359$).

Conclusions Neuraxial anesthesia use during a TKA/THA procedure among those with pre-existing multiple sclerosis was significantly lower than those without the disease while about the same as controls for myasthenia gravis, respectively. Although previous research indicates that there is no relationship between neuraxial use and the exacerbation of symptoms in those with multiple sclerosis, there is indication that anesthesiologists are more likely to use general anesthesia.

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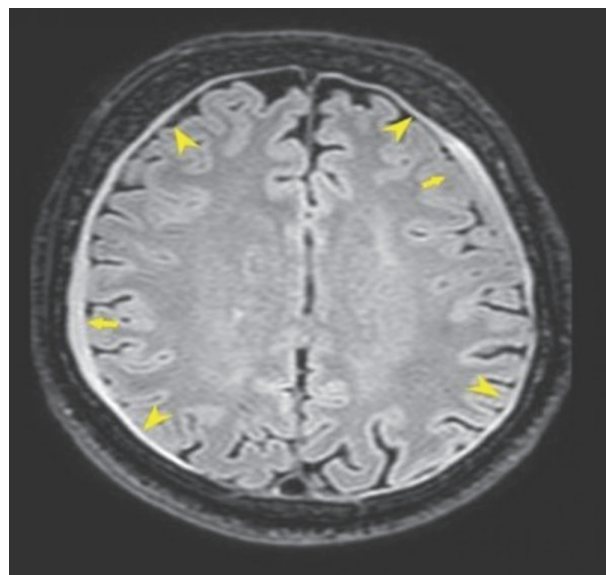
TREATING SPONTANEOUS INTRACRANIAL HYPOTENSION WITH AN ANESTHETIC MODALITY: THE ROLE OF THE EPIDURAL BLOOD PATCH

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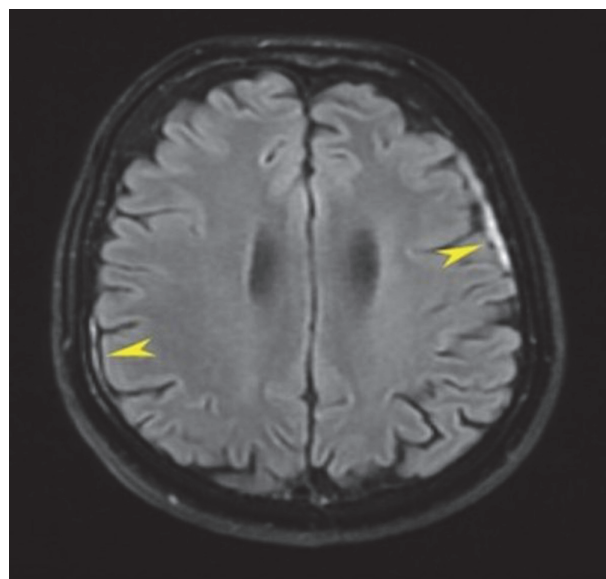
Background and Aims Spontaneous intracranial hypotension (SIH) is a rare syndrome characterized by heterogeneity of presentation and prognosis, which can occasionally result in serious complications. This case series aims to emphasize that SIH remains a diagnostic and therapeutic challenge; if conservative treatment fails, an epidural blood patch (EBP) is a viable treatment option. Although the exact aetiology of SIH is not known, it is believed to be due to cerebrospinal fluid (CSF) leak or a low CSF pressure

Methods Three patients with age ranging between 38–53 years old who presented with complaints not only of an orthostatic headache, but with a variety of symptoms of SIH, including the formation of two subdural hematomas in one of them, were included in this series. These patients did not respond to conservative management and subsequently were referred to the Anaesthesia Department for an EBP.



Abstract B413 Figure 1

Results All three patients were subjected to an EBP with an 18-gauge epidural needle placed into the middle epidural compartment at the T12–L3 level. A total of between 30–43 ml of autologous blood was collected from the patients' left basilic vein and was injected into the epidural space under strict aseptic conditions. All patients reported complete resolution of symptoms following the EBPs, while magnetic resonance imaging improved substantially.



Abstract B413 Figure 2

Conclusions This report describes three cases of SIH with CSF leak originating from the cervical, the thoracic and the lumbar level. The EBP restored CSF volume and relieved the patients' persistent symptoms. EBP is a well-accepted and beneficial treatment modality for SIH when conventional measures fail.

B414 UNILATERAL SPINAL ANAESTHESIA MAY BE A SAFE ALTERNATIVE FOR MANAGEMENT OF HIGH RISK PATIENTS: A CASE REPORT

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Background and Aims Severe aortic stenosis (AS) carries high risk of perioperative mortality. (1) However there is no universal acceptance of spinal anaesthesia in severe aortic stenosis, unilateral spinal anaesthesia (USA) may be safe alternative in these patients. (2)

Methods 93 year old female patient who admitted for emergent above knee amputation. The patient had sclerotic aortic valve with severe aortic stenosis, suffered from hypertension, DM type II, and previous cerebrovascular stroke (CVS) with residual right side weakness and dysarthria. She had pacemaker as a treatment for complete heart block. We anaesthetized her using unilateral spinal anaesthesia (USA).

Results Severe AS is a known risk factor for perioperative mortality. (1) Haemodynamic goals for treating patients with AS include maintaining myocardial oxygen supply via adequate perfusion pressure and diastolic time, preservation of contractility, and maintaining sinus rhythm. (2) There are no evidence based recommendations for the preferred anesthetic regimen in patients with AS. (1) Either general or neuraxial anaesthesia may cause deleterious effects on patients' haemodynamics so it is all about the conduct of anaesthesia rather than the specific technique. (2) In comparison to conventional spinal anaesthesia, unilateral spinal anaesthesia provides more haemodynamic stability making it a suitable choice for high risk patients. (3) Guay et al in their meta-analysis concluded that neuraxial anaesthesia may reduce the mortality for patients undergoing a surgery with an intermediate-to-high cardiac risk in comparison to general anaesthesia. (4)

Conclusions Large studies are needed to evaluate the role and limitations of central neuraxial anaesthesia in high risk patients.

B415 ASSESSMENT OF REGIONAL ANAESTHESIA IMPLEMENTATION BEFORE AND DURING COVID-19 PANDEMIC AT LOWER ABDOMINAL AND PERIANAL SURGERY

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Background and Aims Guidelines about how to perform regional anaesthesia during the COVID-19 pandemic were published(1,2). It was also mentioned that if the surgery is appropriate, regional anaesthesia could be applied mainly(3). We analyzed our approach to regional anaesthesia in lower abdominal and perianal surgery before and during the pandemic.

Methods We screened patients retrospectively who had elective or emergent/urgent lower abdominal surgery (inguinal hernia repair without resection) and perianal surgery (abscess, fistula, and hemorrhoidectomy) in March-December 2020 during the pandemic and from March to December 2019 before pandemic. Demographic data, ASA class, type of surgery and anaesthesia, intraoperative complications, ICU need, ICU and hospital length of stay, and postoperative complications, especially pulmonary were recorded.

Results 225 patients operated in 2019 (pre-pandemic) and 158 patients in 2020 (pandemic) were analyzed (Table 1). Spinal anaesthesia was performed more in 2020 than 2019 (39 (17,3%) vs 74(46,8%) respectively, $p < 0.001$). Pulmonary and any complications were observed more in the pandemic ($p = 0.005$ and $p = 0.001$, respectively). Patients operated in 2020 were also analyzed according to the type of anaesthesia (Table 2). There was no intraoperative complication in patients had spinal anaesthesia. Any postoperative complication was seen in 16(19,0%) patients with general anaesthesia and 6 (8,1%) patients with spinal ($p = 0.047$). Postoperative pulmonary complications were lower in patients had spinal anaesthesia than general anaesthesia, although being statistically insignificant (2(2,7%) vs 8(9,5%) respectively, $p = 0.105$).

Abstract B415 Table 1

Table 1: Comparison of patient, surgical and postoperative characteristics before and during COVID-19 pandemic

Parameter	Pre-pandemic (n=225)	Pandemic (n=158)	P value
Age, years, median [min-max]	45 [18-89]	51,50 [18-87]	0.001
Gender, male, n (%)	193 (85,8%)	125 (79,1%)	0.087
BMI (kg/m ²), median [min-max]	26,79 [18,17-39,18]	25,61 [20,99-38,97]	0.521
ASA physical status class, n (%)			0.052
ASA 1	69 (30,7%)	36 (22,8%)	
ASA 2	136 (60,4%)	95 (60,1%)	
ASA 3	19 (8,4%)	24 (15,1%)	
ASA 4	1 (0,4%)	3 (1,9%)	
Type of surgery, n (%)			0.495
Lower abdominal (Inguinal hernia)	75 (33,3%)	58 (36,7%)	
Perianal surgery (abscess, fistula, and hemorrhoidectomy)	150 (66,7%)	100 (63,3%)	
Emergency, n (%)	115 (51,1%)	89 (56,3%)	0.314
Type of anaesthesia, n (%)			<0.001
General anaesthesia	186 (82,7%)	84 (53,2%)	
Central nerve block-spinal	39 (17,3%)	74 (46,8%)	
Duration of operation, minutes, median [min-max]	25 [10-160]	30 [10-210]	0.012
Patients with ICU need, n (%)	15 (6,7%)	23 (14,6%)	0.011
Length of ICU stay, days, median [min-max]	0 [0-14]	0 [0-7]	0.007
Length of hospital stay, days, median [min-max]	1 [0-28]	1 [0-32]	<0.001
Rehospitalisation, n (%)	2 (0,9%)	9 (5,7%)	0.009*
Any kind of postoperative complication, n (%)	10 (4,4%)	22 (13,9%)	0.001
Postoperative cardiovascular complications, n (%)	2 (0,9%)	8 (5,1%)	0.019*
Postoperative pulmonary complications, n (%)	2 (0,9%)	10 (6,3%)	0.005*
Mortality, n (%)	1 (0,4%)	2 (1,3%)	0.571*

BMI: body mass index, ICU: intensive care unit
*Fisher's exact test