Background and Aims Ropivacaine is suggested to have an improved safety profile over bupivacaine in terms of cardiotoxity and CNS toxicity.

We aimed to study the spinal block characteristics and hemodynamics between commercially available preparation of 0.75% hyperbaric ropivacaine and 0.5% hyperbaric bupivacaine in caesarean section.

Methods This prospective, randomized, double-blinded study was approved by the Institute ethics committee. Following exclusion, 64 term parturients were randomised to receive 0.75% hyperbaric ropivacaine 2 ml (15mg) (commercially available Ropin Heavy, Neon) or 0.5% hyperbaric bupivacaine 2 ml (10mg) (commercially available Anawin Heavy, Neon), with additive fentanyl 10 micrograms in both groups.Our primary objective was to evaluate duration of sensory blockade. Secondary objectives were to compare the hemodynamics and vasopressor usage, onset of sensory and motor blockade, duration of motor blockade, quality of anesthesia, complications and APGAR score.

Abstract B422 Table 1

Table 1. Outcome variables according to groups

	Ropivacaine (n=32)	Bupivacaine (n=32)	P value
Time taken to achieve T6 level (mins)	1.8±0.8	1.2 ±0.5	**0.002**
Time taken to achieve T4 level (mins)	2.6±1.3	1.8±0.8	**0.007**
Time taken for onset of complete motor paralysis - Modified Bromage 3 (mins)	3.8±1.0	1.3±0.8	**0.005**
Time for sensory blockade to regress two segments (mins)	84±24	108±12	**0.005**
Time for return of motor block -Modified Bromage 0 (mins)	126±36	222±30	**0.005**
Total vasopressor (Ephedrine) given (mg)	5.8±2.6	7.8±4.6	0.076

Data are mean± SD. Statistically significant changes are shown in bold. P<0.05 is considered significant.

Results Two segment sensory regression and motor blockade regression was faster in ropivacaine than bupivacaine (p=0.0005, 0.0005). The onset of sensory block to T6 and T4 and complete motor block was slower in ropivacaine (p= 0.02, 0.07, 0.0005 respectively). The mean arterial pressure was significantly higher throughout all time intervals in ropivacaine than bupivacaine and vasopressor usage was lesser in Ropivacaine. The intraoperative quality of anesthesia was adequate in both groups. The APGAR scores remained high and side effects did not differ between groups.

Conclusions 0.75% Ropivacaine can be a suitable alternative to 0.5% Bupivacaine in patients undergoing caesarean section under spinal anaesthesia with a benefit of early sensory and motor recovery, and better intraoperative hemodynamic profile without significant adverse effects.

B423 CIRCADIAN EFFECT ON SPINAL ANAESTHESIA FOR CAESARIAN SECTION

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Background and Aims The circadian rhythm plays a significant role in affecting the pharmacological properties of many anesthetic agents. The aim of this study was to investigate the effect the circadian rhythm may have on the duration of spinal anesthesia for parturient patients undergoing fetal delivery by caesarian section.

Methods In the present study, which was approved by our hospital scientific/ethics committee, ref. number: 35/4th/7298/18–5-2017, ninety parturient patients, ASA I-II, presented for caesarean section, urgent and/or elective, under spinal anaesthesia, were assigned to three equal groups, A (morning/afternoon group), B (evening group), C (night group), which were monitored for 8 hours, according to the time-point of the intrathecal drug administration. The same levobupivacaine and fentanyl dose was given to all patients. Pinprick or cold test, the four-point modified Bromage scale (0–3), and the numerical scale (NRS 0–10) were used respectively for the assessment of sensory and motor blockade, and post-anesthetic pain. The duration of sensory and motor blockade, the time of study drug administration to first postoperative analgesic request and pain score at first analgesic request were recorded.

Results We observed prolonged duration of motor blockade, sensory blockade and time of study drug administration to first postoperative analgesic request in group A compared to groups B($p<0.001$) and C($p<0.001$).Higher pain scores at first postoperative analgesic request were observed in group C compared to groups A($p<0.001$) and B($p<0.001$).

Conclusions We assume that time-point of intrathecal drug administration contributes to anaesthesia's duration and that the intensity of postoperative pain at first analgesic request is partially related to circadian conditions.

B424 LOW DOSE PETHIDINE VS ROPIVACAINE AND FENTANYL FOR SUBARACHNOID ANAESTHESIA IN UROLOGICAL OPERATIONS

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Background and Aims The ideal agent for subarachnoid anaesthesia is still a matter of research. Subarachnoid administration of pethidine hydrochloride has been successfully administered (dose of $1mg/kg^{-1}$).This study aims to assess the efficacy of low dose of pethidine hydrochloride ($0.4mgkg^{-1}$) compared to administration of ropivacaineand fentanyl which is nowadays the common practice.

Ethical approval has been granted by the ethics committee.

Methods Patients undergoing transurethral resection of bladder tumor were blindly randomly allocated into 2 groups. Group I patients received low dose of pethidine hydrochloride ($0,4mgkg^{-1}$) and Group II patients received 15mg ofropivacainewith 15 mcg of fentanyl.Catheter-related bladder discomfort (CRBD) was evaluated.

Results 101 patients were enrolled in the study. There was no difference between the demographic profile and duration of operation between the groups($p>0.05$).There was a difference regarding the motor block which was present only in 10,2%

of Group I patients and in all of Group II patients (p<0,01). Length of stay in postanaesthesia care unit was significantly higher in Group II patients (p<0,01) with no difference in adverse events. No difference in analgesic requirements was observed for postoperative pain management in either group yet there was a significant difference in time to postoperative analgesic administration(p<0,01) in favor of Group I patients. The incidence of CRBD was 36,7% in Group I and 78,8% in Group II.

Conclusions Subarachnoid anaesthesia with low dose pethidine administration presents as a suitable alternative to current practice.

B425 CONTRAST CT-GUIDED LUMBAR PUNCTURE FOR INTRATHECAL ACCESS IN PATIENTS WITH SPINAL MUSCULAR ATROPHY

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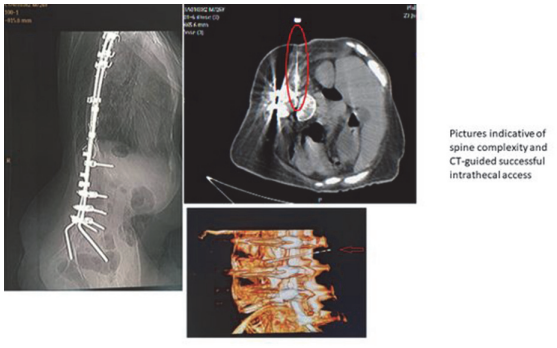
Background and Aims Life expectancy for adults with spinal muscular atrophy (SMA) has increased significantly and central neuraxial anesthesia remains one of the safest options for this specific category of patients. Patients with SMA have usually been subjected to spine fusion surgeries and suffer from joint contractures and scoliosis. Successful intrathecal access using a traditional posterior approach is often precluded due to spinal deformity. The aim of this case-study is to evaluate the feasibility and safety of the contrast CT-guided transforaminal/interlaminal intrathecal access in patients with spinal muscular atrophy type 2 and 3

Methods 10 adult, non-ambulatory patients with SMA type 2 and 3 were referred for intrathecal administration of Nusinersen. They had undergone extensive thoracolumbar posterior spinal fusion which rendered them without access for a posterior approach. An experienced Anesthesiologist and an Interventional Radiologist identified the shortest needle path from the skin to the neural foramen on imaging. Patients were placed in either the left or right lateral decubitus position with the apex of the scoliotic curvature oriented upwards.



Abstract B425 Figure 1

Results 7 patients underwent interlaminal contrast CT-guided intrathecal injections with cutting pencil point needles 20G, without introducer. In 3 patients, the transforaminal approach was used; among them, 1 received the drug through a Tuohy 18G epidural needle.Transient lumbar pain occurred in 2 patients while 1 developed short-term headache.No other complications were noted.

Conclusions Contrast CT-guided intrathecal access is achievable in SMA 2 and 3 patients with challenging spine.The procedure can be easily learned and performed with a high rate of success and low rate of complications.

B426 REAUDIT SPINAL SONOGRAPHY & APPLICATIONS OF ULTRASOUND FOR CENTRAL NEURAXIAL BLOCKS: SURVEY OF PRACTICE BEFORE AND AFTER TRAINING IN OUR HOSPITAL

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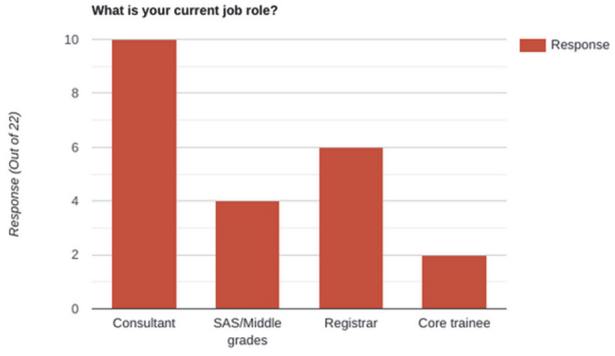
Background and Aims The current evidence supports the use of neuraxial ultrasound as a useful adjunct to conventional CNB (Central Neuraxial Block) techniques: It can be used to accurately identify lumbar intervertebral levels[1]. It Allows precise measurement of depth to the epidural space. Neuraxial ultrasound may facilitate more accurate needle placement and decrease the number of needle redirections and skin punctures[2]. Ultrasound-assisted CNB is not designed to replace the conventional surface landmark-guided technique, which is simple and effective in the majority of patients.

Methods Pre training survey and post training survey was conducted at Wexham Park Hospital. Participants were chosen through a pre-training survey. They included consultants, middle grades, registrars and core trainees. A total of 22 people replied to the survey and were happy to particip[ate. Survey was disseminated through trust email and findings were shared with the hospital at Educational half days. On the day of training, 22 participants had the opportunity to perform and gain confidence on the mannequin. A didactic lecture was delivered followed by a training session. A post training survey was sent back to all the participants.

Results



Abstract B426 Figure 1