

of maternal hypotension during elective cesarean section under combined spinal-epidural anaesthesia

Methods After Ethics Committee approval, one hundred parturients were randomized to receive either 6% hydroxyethyl starch 5 mL/kg before spinal anaesthesia (colloid preload) or Ringer's Lactate solution 10 mL/kg starting with intrathecal injection (crystalloid co-load). Both groups were also administered norepinephrine 4 µg/min, starting simultaneously with the administration of the subarachnoid solution. The primary outcome was the incidence of maternal hypotension (SBP<80% of baseline). The incidence of severe hypotension (SBP<80 mmHg), total dose of ephedrine administered as well as maternal side-effects and the neonatal outcome were also recorded

Results There were no significant differences in the incidence of hypotension (13.7% vs. 16.3%, $p=0.933$ or severe hypotension (0% vs. 4%, $P=0.238$) between colloid preload and crystalloid co-load groups, respectively. The median [range] ephedrine dose was also comparable between the two groups ($P=0.807$). There were no significant differences in maternal side-effects or neonatal outcomes between groups

Conclusions The incidence of hypotension during elective cesarean section is low and comparable when a norepinephrine infusion is used in combination with either colloid preload or crystalloid co-load, with perhaps a marginal superiority of colloid preload in the prevention of severe hypotension. It appears that the optimal regimen for prevention of maternal hypotension is a combination of fluids and a prophylactic vasopressor like norepinephrine

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COLLOID CO-HYDRATION IN MATERNAL HYPOTENSION: DOES THE ADDITION OF A VASOCONSTRICTOR MAKE A DIFFERENCE?

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Background and Aims This study aimed to investigate whether the addition of a fixed rate phenylephrine infusion or noradrenaline infusion to a colloid co-hydration regimen results in better maternal hemodynamic status as compared to the administration of colloids alone without any vasoconstrictor during elective cesarean section under combined spinal-epidural anaesthesia

Methods 120 parturients were randomized to either phenylephrine 50 µg/min (group P) or noradrenaline 4 µg/min (group N) or placebo (group C). As soon as the spinal injection started, all groups were administered 10 mL/kg of hydroxyethyl starch solution simultaneously with the onset of vasoconstrictor infusion. The primary end-point of the study was the incidence of maternal hypotension (SAP<80% of baseline)

Results The incidence of maternal hypotension was higher in group C than in both groups P and N ($p=0.011$ and $p<0.001$, respectively). The incidence of bradycardia was higher in group P than in group N ($p=0.018$). The incidence of reactive hypertension was higher in group P than in both groups N and C ($p=0.029$ and 0.005 , respectively). The need of modification of the infusion rate was higher in group P than in both groups N and C ($p<0.001$ and $p=0.002$, respectively). Post-delivery Apgar scores were similar in all groups

Conclusions The combination of a fixed-rate infusion of noradrenaline with the co-administration of colloid seems to be the most effective in the management of the parturient during cesarean section, being superior to either a combination of colloid co-administration with a fixed rate of phenylephrine or to the administration of colloid alone without any vasoconstrictor agent

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AN OBSTETRIC ANAESTHETISTS' ASSOCIATION (OAA) SURVEY OF THE USE OF ULTRASOUND SCANNING TO ASSIST WITH CENTRAL NEURAXIAL BLOCKS IN OBSTETRIC ANAESTHESIA

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Background and Aims Central Neuraxial Blocks (CNBs) are key to obstetric anaesthetic practice. They are performed by landmark technique, however, there is increasing evidence supporting the use of ultrasound-assisted CNBs^{1, 2}.

This survey aims to explore:

- Current use of ultrasound-assisted CNBs
- Current training being delivered
- Barriers to training

Methods We conducted an OAA-approved national survey of UK obstetric anaesthetists in 2021, with 394 completed responses.

Results 86% of responders were consultant obstetric anaesthetists. 69% said they perform ultrasound-assisted CNBs, but some only in specific circumstances (Figure 1). 40% do not use ultrasound at all due to lack of training or lack of confidence in the technique.

Figure 1
Circumstances in which spinal ultrasound is used by anaesthetists for CNB

Special circumstances when ultrasound used	Number of responses
Difficulty with CNB	
• Failed attempts	75
• Failed attempts by colleague	13
• Failed attempts and if another colleague able to perform neuraxial ultrasound	7
History of difficulties / complications	
• Previous difficult CNB	49
• Epidural Blood Patch	2
• Previous Accidental Dural Puncture	1
• Resiting failed epidural	3
Predictors of difficult CNB	
• Obesity	74
• Obesity (class 2 or above)	37
• Obesity and difficulty palpating anatomical landmarks	57
• Scoliosis	56
• Previous spinal surgery	16
Higher risk of complications from CNB	
• Low BMI (risk of Accidental Dural Puncture)	3
• Borderline coagulopathy	2
Teaching / training purposes	44
Elective cases	2

Abstract B278 Figure 1

Midline and depth to posterior complex are seen as the primary landmarks to establish on ultrasound (Figure 2).

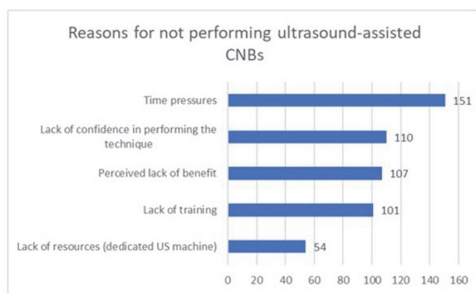
Figure 2
Reported benefits of using neuraxial ultrasound for CNB

Reasons for using ultrasound	Number of responses
Identify landmarks	
• Midline	121
• Level	76
• Depth	107
• Angulation	21
• Identify scoliosis	8
• Determine largest space	4
• Choose appropriate needle length	11
Improve performance of procedure	
• Reduce number of attempts / redirections	62
• Reduce failure rate	24
• Shorter procedure (in those where difficulty expected)	22
Reduce complications	
• Improve safety / less trauma	13
• Reduce risk of Accidental Dural Puncture	7
• Reduce incidence of paraesthesia	1
• Avoidance of GA	4
• Increased efficacy of epidural	5
Improved patient comfort / satisfaction	16
Teaching	12

Abstract B278 Figure 2

Perceived reasons why ultrasound might not be used are shown in Figure 3.

Figure 3
Reasons for not using neuraxial ultrasound for CNB



Abstract B278 Figure 3

Only 9% of departments have guidelines for ultrasound-assisted CNBs.

Conclusions Ultrasound-assisted CNBs in obstetric anaesthesia remains a divisive subject, despite evidence suggesting it is a low-skill technique with improved first-pass success, without adding excessive time.

40% of responders do not use ultrasound due to lack of training and confidence in the technique and fears that overreliance on ultrasound may lead to deskilling in landmark techniques.

Time pressures, lack of trainers and uncertainty of benefits are the main barriers to implementing training.

For ultrasound-assisted CNB to gain more acceptance, we suggest:

1. Recognising neuraxial ultrasound as a key skill
2. Further guidance and training from the OAA or other regional anaesthesia course providers

3. Teaching and competency achievements must be embedded into training

B280 UNILATERAL UPPER ARM SENSORY AND MOTOR BLOCKADE ASSOCIATED WITH IPSILATERAL HORNER'S SYNDROME AFTER EPIDURAL ANESTHESIA FOR URGENT CESAREAN-SECTION

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Background and Aims Subdural blockade is a rare complication after neuraxial anesthesia, which usually manifests as a patchy or disproportionate block.

We present a case of a primiparous that developed unilateral upper arm sensory and motor blockade associated with ipsilateral Horner's syndrome after epidural anesthesia for urgent cesarean-section.

Methods An obese primiparous, 23-years-old, 39 weeks and 4 days pregnant, ASA II, was admitted in latent phase of labour. After 12 hours, an epidural catheter was inserted (L3-L4 level) and 10 mL of ropivacaine 0.2% and 10mcg of sufentanil were injected with pain relief. Epidural analgesia was administered as requested with no complications during labour.

Results After 24h, an urgent cesarean-section was performed due to stationary labour. After injection of 12 mL of ropivacaine 0.75% through the epidural catheter, a fall superior to 20% of basal blood pressure was noted, with need for vasoactive drugs, associated with upper arm motor and sensitive blockade. After neurologic examination, ipsilateral Horner's syndrome was detected. High regional block was excluded. A newborn was delivered with APGAR score of 9–9–10. At the post anesthesia care unit, possible subdural drug spread was assumed, and the catheter removed. Two hours later, upper arm motor and sensitive blockade was reversed, with ptosis and miosis maintenance. The patient was discharged to the nursery.

After 12 hours, ptosis and miosis were solved. Discharge home occurred on the second postoperative day.

Conclusions New neurologic manifestations after epidural drug administration require brief evaluation to exclude complications as high regional block.

Effective communication with the patient is of utmost importance.

B281 NEAR MISS COAGULOPATHY! SHOULD PREECLAMPTIC PARTURIENTS WITH IV DRUG ABUSE GET SERIAL INVESTIGATION

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Background and Aims A 32-year-old G1P01 at 36-weeks-3-days with a history of alcohol and opioid abuse, asthma, gestational hypertension presented with severe pre-eclampsia(SP) by blood pressure criteria. The patient refused a trial of induction of labor and was scheduled for Cesarean section (CS) under neuraxial anesthesia. Her blood workup was normal 10 hours prior to her CS. A repeat workup showed