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Introduction

Spinal anesthesia (SA) is the primary method for cesarian section anesthesia. Bupivacaine is the most widely used local anesthetics for spinal anesthesia (SA), and has a time to onset of complete surgical anesthesia between 5 - 8 minutes. We report a case in which a patient received CS with bupivacaine for primary elective cesarean section with slow onset of surgical anesthesia, requiring 22 minutes after placement before achieving adequate analgesia.

Case Description

29F at 39 2/7 weeks gestation presented with her baby in breach, electing for primary cesarian section under spinal anesthesia. 25 G Whitacre Spinal needle with a 17 G introducer were used at the level of the ASIS.

Case Description Cont'd

Loss of resistance was noted and cerebral spinal fluid (CSF) droplet was visualized. 1.8 ccs of 0.75% hyperbaric bupivacaine with 15 mcgs of fentanyl and 150 mcgs of morphine were injected over 30 seconds with CSF aspiration every 3-4 ccs to confirm correct position. Patient was immediately repositioned supine with left lateral uterine displacement, and 10 mg of ephedrine and 100 mcgs of phenylephrine were prophylactically administered. Blood pressure cuff was set to cycle every 2 minutes. After 5 minutes patient felt no changes in her lower extremities. Vital signs showed no changes. After 8 minutes we discussed plans for possible failed SA. After 13 minutes patient's sensory and motor blockade were noted to be gradually increasing. A plan was made to prep the patient for surgery with general anesthesia (GA) as a possibility. The sensory and motor blockade continued to develop slowly. After 22 minutes motor and T10 sensory blockade were achieved and surgical incision was made.

Discussion

SA is the primary method for analgesia during cesarian section. Intravenous anesthetics will also partially or completely anesthetize the baby, often requiring the presence of a neonatal practitioner. Furthermore, mothers are at a greater risk of aspiration during GA, and typically have more challenging airways. SA poses less risks to mother and baby, and also allows the mother to witness the birth of her child. The mechanism of failed SA after aspiration of CSF is uncertain although it may be due to partial subdural injection. Despite the value of SA being well documented, a consensus around how to proceed after failed SA is lacking, with some wariness with repeat SA due to fear of high spinal.

Discussion

One source suggested that a lack of surgical anesthesia 10 minutes after placement of the spinal may be considered a failed spinal and reported 29 of 35 cases of failed spinals for elected cesarean sections were converted to GA. We report this case to encourage allowing additional time to pass in select situations in order to minimize conversion to general anesthesia or the risk of a repeat dose causing a high spinal.

References

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