



A parturient with hypermobile Ehlers-Danlos Syndrome demonstrated a normal response to intrathecal, but no response to epidural local anaesthetic

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INTRODUCTION

- **Hypermobile Ehlers-Danlos Syndrome (hEDS)** is a connective disorder in which patients present with variable clinical manifestations including joint disorders, muscular pain and skin changes.
- There are few case reports on neuraxial local anaesthetic (LA) resistance in obstetric patients with hEDS causing partial or complete failure of sensory and motor blockade.¹
- Here, we present a case report on a term obstetric parturient who demonstrated a good response to intrathecal bupivacaine, but a poor response to epidural bupivacaine.



CASE REPORT

- The patient was a 33-year-old, G3P0 with hEDS, a BMI of 37 (body weight of 102 kg), fibromyalgia, gestational hypertension, and hypersensitivity to multiple drugs including nonsteroidals, codeine, and paracetamol. She was under investigation for mast cell activation syndrome.
- She had been seen in the high-risk obstetric anaesthetic clinic and the option of neuraxial analgesia and anaesthesia for labour analgesia and surgical obstetric intervention respectively was recommended given the patient's BMI and limited analgesic option. The risk of possible LA resistance and need for extra care with patient positioning were discussed.
- She was admitted to the delivery suite in established labour at term and was offered a lumbar epidural prior to augmentation. The epidural was technically straight forward, but she experienced a low sensory block with bupivacaine 0.1%/ fentanyl 2mcg/ml PCEA even with multiple clinician boluses and so a combined spinal epidural was offered at the consultant level.
- Labour analgesia with intrathecal bupivacaine lasted for three hours; however, the effect of the epidural analgesia was again grossly insufficient even with higher concentrations of bupivacaine. At no point was any definite sensory level detectable. She was offered a remifentanyl PCA, but prior to its commencement required a category 2 LSCS due to failure to progress.
- Intrathecal heavy bupivacaine 0.5% (2.5ml), fentanyl (15 mcg) and morphine (0.1mg) was administered with single shot spinal which was effective with required sensory and motor block for the surgery. She had an uneventful perioperative period.

DISCUSSION

- hEDS is a challenge for the obstetric anaesthetist due to a lack of evidence-base as much of the literature consists of case-reports.
- Unpredictable degree of LA resistance also affects the patient and the obstetric outcome.²
- The exact mechanism for LA resistance is unclear, rapid dispersal of LA due to increased microvascular permeability is a possible explanation.²
- Careful individualized planning is essential for these patients considering the overall clinical picture.
- Neuraxial analgesia and anaesthesia is still superior and a considerable option in subsequent pregnancies in this population.
- The knowledge-base would benefit from a large-scale study of obstetric patients affected by hEDS.
- Revising the emergency medical alert by adding LA resistance.

REFERENCE

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