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Introduction

- Neuraxial anesthesia is typically the preferred mode of analgesia for a parturient undergoing a Cesarean section
- Comorbidities like scoliosis and morbid obesity can make the placement and function of this modality difficult
- Other systemic diseases like multiple sclerosis can further challenge the anesthetic management in these patients
- It is imperative to consider all facets of the patient's history prior to formulating an anesthetic plan

Case Summary

- A 39 year old female, G5P0040, at 39 +6 weeks, presented with variable decelerations on fetal heart tracing
- History notable for morbid obesity (BMI 49), multiple sclerosis with baseline tremor and urinary incontinence (stable on current medical regimen), and scoliosis with back surgeries/Harrington rods
- Patient had late initiation of prenatal care with noted intra-uterine growth restriction and elevated blood pressures
- Patient desired an elective primary Cesarean section
- Lumbar X-Ray imaging showed rods and screws in lumbar pedicles 1-3 as well as mild levo-scoliosis
- Neurology cleared patient for neuraxial anesthesia and recommended temperature monitoring
- Plan for spinal anesthesia with general anesthesia as the alternative was discussed with patient
- Patient underwent successful spinal anesthesia with 0.75% bupivacaine, fentanyl, and preservative free morphine with no noted intra-operative or post-operative complications

Discussion

- Careful planning with multiple anesthetic considerations is essential for successful management of any patient

- Multiple Sclerosis:
  - Thorough pre-operative evaluation with a baseline neurological status and exam
  - Succinylcholine should be used judiciously
  - Temperature monitoring should be performed

- Scoliosis:
  - Rotation of uncorrected scoliosis can distort the superficial anatomy
  - Following correction, hardware insertion often involves vertebral decortication and spinous process removal, which can impede placement.
  - Recommended to orient the needle towards the convexity of the curve