Anaesthetic Management of a parturient with Fowler's syndrome.

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Background

- Anaesthetic management of obstetric patient with fowler's syndrome offers various challenges.
- Fowler's syndrome is characterized by painless urinary retention in young women often under the age of 30.
- Published literature on anaesthetic implications and neuraxial anaesthesia in Fowler's syndrome patients with sacral neuromodulator devices is scarce.
- In this report , we describe a successful management of a parturient who underwent elective caesarean delivery with Fowler's syndrome under a spinal anaesthetic.

Case Presentation

- Authors were directly responsible for pre-operative evaluation, administration of neuraxial anaesthesia and monitoring during the peri-operative period.
- Management after LSCS and daily post-operative follow-up were conducted by obstetric and anaesthetic teams as per department protocols
- The patient's medical record and telephonic conversation were used to depict the outcome.

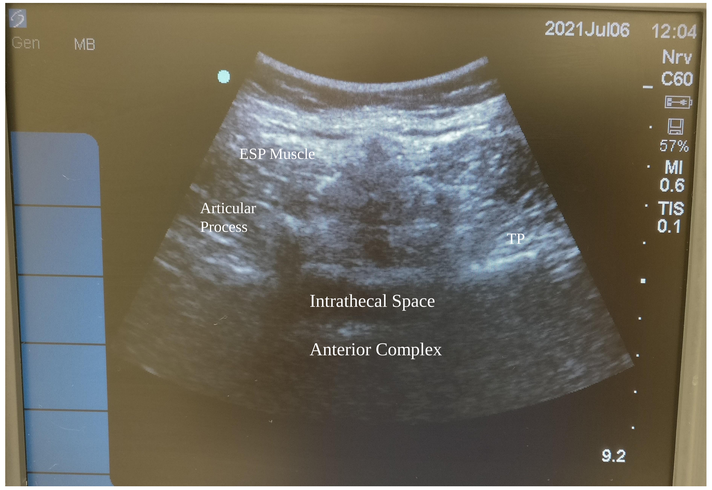


Case Presentation

- we are reporting a 30-year-old multigravida patient with Fowler's syndrome with an implanted sacral neuromodulator device who presented for an elective caesarean delivery.
- Patient was diagnosed with the condition at the age of 17 and struggled with recurrent urinary tract infection, pyelonephritis and self-catheterization to empty the bladder.
- She was implanted with sacral neuromodulator device in 2016 which relieved her symptoms and was turned off at the beginning of her current pregnancy
- She also suffered from anxiety, depression and chronic back pain with sciatica/radicular pain. MRI of spine shows significant degenerative changes, disc protrusion at L4/5, L5-S1.
- Patient had 3 previous caesarean deliveries under general anaesthetic and struggled to cope with post-operative pain.
- She was evaluated by anaesthesiology team and deemed a suitable candidate for spinal anaesthetic.
- Pre-procedural ultrasound marking was done to mark L2-3 space and single shot subarachnoid block performed using 25G Whitacre needle and 12 mg of heavy bupivacaine with 300 mcg of diamorphine into intrathecal space.
- Uterine tonicity maintained by Oxytocin bolus dose and 30IU infusion.
- Patient tolerated the anaesthetic and surgical procedure well and sacral neuromodulator device was activated on POD-1. Both the mother and newborn were discharged on POD-3 after uneventful recovery.
- Telephonic conversation at six months post-delivery indicated uneventful patient recovery and normal growth of the baby.

Discussion

- It was first described in 1985 as an isolated disorder with abnormal urethral sphincter electromyogram (EMG). There is no neurological disorder associated with the condition and up to half the women have associated polycystic ovaries
- Limited large-scale studies on the effect of SNM devices on foetus and anaesthetic effects.
- Turning the amplitude of SNM to lowest setting of turning off prior to procedure
- Bipolar cautery is preferred over monopolar and if unavoidable, should be used in lowest effective setting and ground pad should be placed far away.
- May interfere with ECG monitoring, pacemakers and ICDs
- Pre-procedural ultrasound is recommended for neuraxial procedures in obstetrics.
- Neuraxial anaesthetic can be safely administered in patients with back pain and disc herniation, and with implantable pumps and stimulators.



References

1. Anso' M et al. Neuraxial analgesia in a pregnant woman with Fowler's syndrome and sacral neuromodulation. *Int J. Obstet Anesth.. 2017;30:58-61*
2. Kavia RB, Datta SN, et al. Urinary retention in women: its causes and management. *BJU Int.* 2006;97:281-7.
3. Young B, Onwochei D, et al. Conventional landmark palpation vs. preprocedural ultrasound for neuraxial analgesia and anaesthesia in obstetrics- a systematic review and meta-analysis with trial sequential analyses. *Anaesthesia*. 2021;76:818-31.
4. Vercauteren M, Waets P, et al. Neuraxial techniques in patients with pre-existing back impairment or prior spine interventions: a topical review with special reference to obstetrics. *Acta Anaesthesiol Scand*. 2011;55(8):910-7.

Conclusion

- Neuraxial anaesthesia can be safely administered in patients with Fowlers' syndrome with implanted Sacral neuromodulator device.
- Ultrasound guided neuraxial blocks can be safely administered in patients with disc issues.