



Cesarean Section Under Spinal Anesthesia In Parturient With History Of Reversible Cerebral Vasoconstriction Syndrome

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Objective

- Learn about Reversible Cerebral Vasoconstriction Syndrome (RCVS) and its unique challenges for the Anesthesiologist.
- Highlight strategies in management of patients with RCVS who undergo spinal anesthesia to avoid vasoactive medications for treatment of post-spinal hypotension.

Brief PMH and intra-operative management

- A 25-year-old G1P0 female with a medical history of migraines and RCVS complicated by a subarachnoid hemorrhage (SAH) in the context of use of marijuana and SSRIs arrived for an elective Cesarean Section (SC) under spinal anesthesia.
- The goal was to avoid vasoactive medications due to the patient's history of RCVS, and measures were taken to proactively manage spinal anesthesia-induced hypotension.
- In addition to standard ASA monitors, a noninvasive finger cuff (Edwards ClearSight System) was used for continuous noninvasive hemodynamic monitoring.
- The patient received 500ml of 5% albumin before intrathecal injection and 500ml bolus of Lactated Ringer's as a co-load.
- After an uneventful spinal block, patient was placed in a 30° left lateral tilt and the Trendelenburg position.
- During the case, the patient additionally received 250 ml of 5% Albumin and 1000 ML of LR.
- The patient remained hemodynamically stable throughout the procedure, and no vasoactive medications were used.
- Post-operative course and 1-month follow-up were uneventful.



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Background

- Reversible cerebral vasoconstriction syndrome (RCVS) presentation can range from isolated severe thunderclap headaches with full recovery in most patients to rare permanent brain injury in minority related to intracerebral hemorrhage, cerebral edema, stroke, seizure, and death.
- At least 50% of RCVS cases reported exposure to vasoactive medication or substance drugs.
- It is advised to avoid vasoactive medications including triptans, ergots, and vasopressors in patients with acute RCVS or with a history of RCVS as they can aggravate symptoms.
- Pregnant patients with RCVS who undergo a spinal block for the Cesarean Section pose a unique challenge for an anesthesiologist as use of vasoactive drugs (Phenylephrine) has become standard practice to manage post-spinal hypotension.



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Conclusion

- There are no guidelines published on post-spinal hypotension management in patients with RCVS, although avoiding vasopressors is recommended.
- The authors report their experience in managing post-spinal hypotension without vasoactive medications in a patient with RCVS who underwent spinal anesthesia for Cesarean Section.
- The precautions that need to be considered during evaluation and management are also outlined.

References

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