

A super morbid obese patient with Wolff-Parkinson-White Syndrome and supraventricular tachycardia in need of cesarean delivery

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Introduction

- Wolff-Parkinson-White (WPW) Syndrome is a condition of an accessory electrical pathway due to a band of atrial tissue that connects the atria and ventricles, allowing electrical activity to bypass the traditional pathway through the atrioventricular node.
- A major cause of paroxysmal supra-ventricular tachycardia (SVT) in the obstetric population and may induce detrimental fetal and maternal outcomes during a cesarean delivery[1].

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Case Report

- 26-year-old G1 with WPW, mild aortic root dilation (4.0cm), LVEF of 60-65%, and super morbid obesity (BMI of 80kg/m²) was planned for cesarean delivery (CD) at 37 weeks.
- At 33w6d, the patient had a HR > 200bpm diagnosed with SVT. A loop recorder was placed.
- She presented three days prior to planned CD with mildly worsened SOB. Her loop recorder showed occasional episodes of SVT.
- The CD was scheduled in the cardiac operating room under combined-spinal epidural (CSE).
- Intraoperatively, standard ASA monitors and a ClearSight system were utilized for advanced hemodynamic monitoring of SVR and MAP.
- Spinal dose included 1.4ml of 0.75% hyperbaric bupivacaine, 15mcg of fentanyl, and 150mcg of duramorph.
- Defibrillator pads were placed as precaution, phenylephrine infusion was immediately started, T6 sensory blockade achieved.
- CD was uncomplicated and hemodynamic parameters were stable. No arrhythmias were observed. Phenylephrine infusion was weaned off at completion, and no additional pressors/anti-arrhythmic drugs were required.
- She underwent an uncomplicated WPW ablation two days later.

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Discussion

- Patients with WPW can be successfully managed under CSE
- Regional techniques to avoid sympathetic stimulation are beneficial[2].
- Extensive preoperative evaluation, close hemodynamic monitoring, and careful selection in neuraxial anesthetic, allow for favorable outcomes.

References

1. Jetley et al., 2016. WPW Syndrome: Intricacies of Anesthetic Management in Cesarean Delivery. *J. Cardiol Clin Res* 4(1): 1052.
2. Deviseti et al., Spinal Anaesthesia is Safe in a Patient with Wolff-Parkinson-White Syndrome Undergoing Evacuation of Molar Pregnancy. *J. Clin Diagn Res.* 2016;10(2):UD01-UD2. doi:10.7860/JCDR/2016/15751.7182



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