Anesthetic Management of a Patient with Rheumatic Heart Disease Undergoing Cesarean Delivery

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SOAP 2026 ANNUAL MEETING
MONTRÉAL, QUÉBEC, CANADA APRIL 29-MAY 3, 2026

Background

- Anesthetic management of pregnant patients with cardiopulmonary disease is challenging
- Rheumatic heart disease is unique in many ways, though is highly prevalent worldwide
- A thorough understanding of cardiovascular pathophysiology is essential for optimal care of these complex patients

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Case Presentation

Past Medical History

- 32-year-old G3P1011 at 37 weeks
- Rheumatic heart disease
  - Severe mitral regurgitation
  - Moderate mitral stenosis
- Anti-phospholipid antibody syndrome
  - On therapeutic enoxaparin
- Prior stroke with residual deficits
- Seizures
- Obesity (BMI 33)

Anesthetic Management

- Antepartum multidisciplinary care planning
- Pre-operative arterial line placement
- Venous access with two large-bore peripheral intravenous catheters
- Neuraxial anesthesia with slowly titrated lumbar epidural
- Avoidance of extreme shifts in blood pressure and heart rate

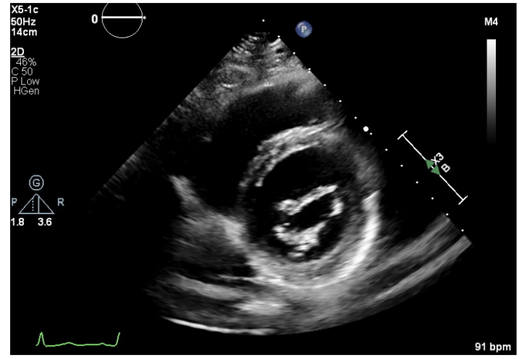

Figure 1. Parasternal short axis view of mitral valve

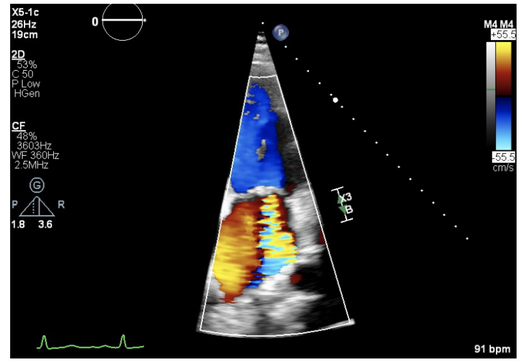

Figure 2. Apical four-chamber view of mitral valve

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Discussion

- Physiologic changes in the peripartum period present challenges in patients with cardiac disease
- Cardiovascular disease is the leading cause of maternal mortality in the developed world
- Neuraxial anesthesia with a lumbar epidural can allow for a more gradual onset of sympathectomy
- Multidisciplinary care planning is essential

1. Lancet. 2012;379(9819):953-964
2. Int J Obstet Anesth. 2019;37:73-85
3. Circulation. 2023;147(11)