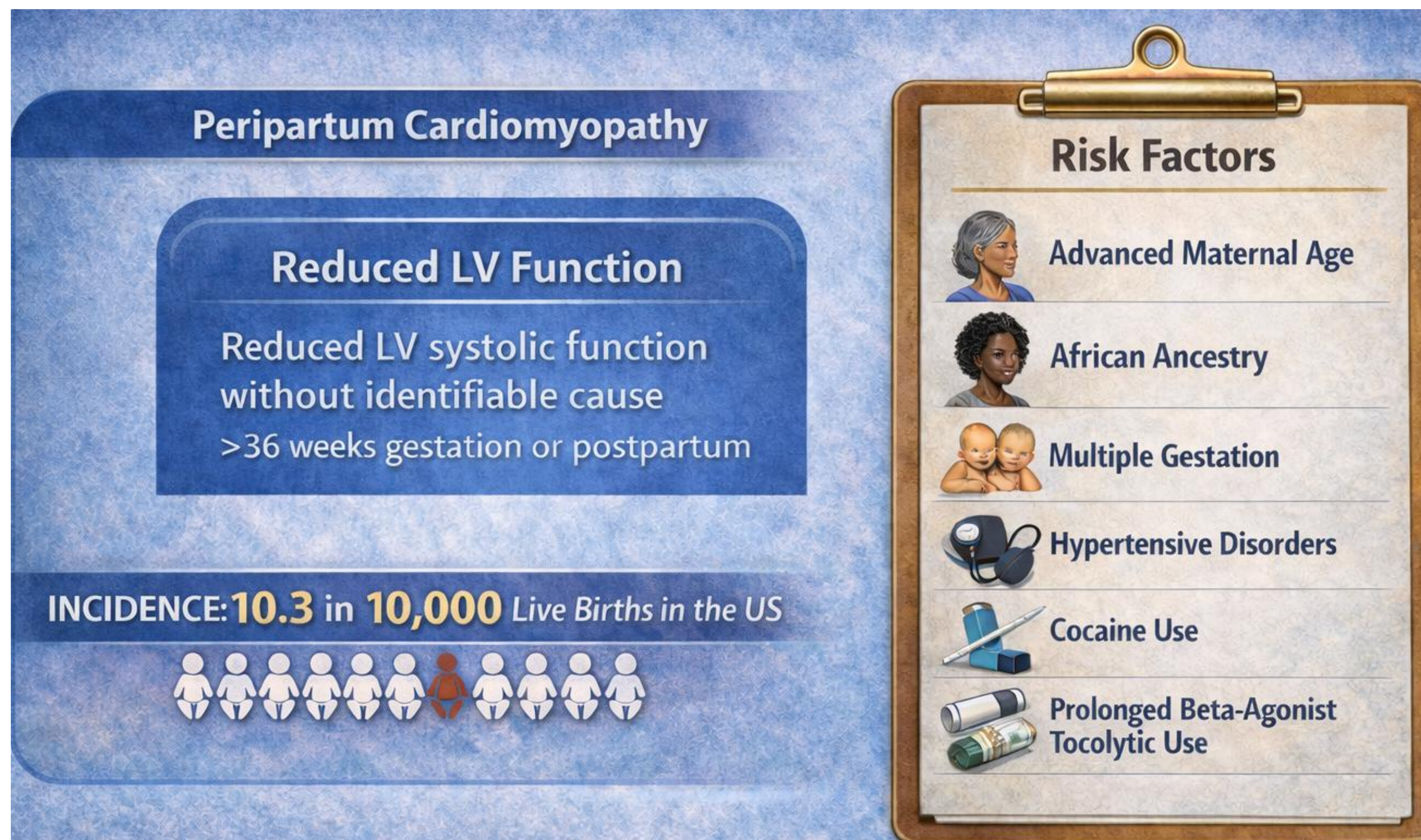


Peripartum Cardiomyopathy: Point-of-Care Ultrasound Utilization and Anesthetic Considerations

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Introduction



Pre-operative

- 23yo G1P0 at 38w6d with worsening dyspnea
- Transferred to Level IV due to hemodynamic instability and high-risk OB care
- TTE on admission - EF 20-25% - new diagnosis of dilated cardiomyopathy
- Inotropic support and diuresis in ICU with transient improvement of symptoms and fetal heart rate tracing
- Urgent cesarean delivery was indicated for NRFHR and patient brought to L&D OR for delivery

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Intra-op and Post-Operatively

- Pre-induction A-line and Central line, GETA w/ RSI (etomidate, succinylcholine and epi)
- Uncomplicated c/b, APGARs 8, 9
- Intra-op POCUS – worsening LVEF ~10% and B lines on lung exam (Fig 1)
- VA ECMO was initiated Intra-op
- **POD3: Off ECMO, femoral artery occlusion and pseudoaneurysm**
- **New onset severe mitral regurgitation and progressed to bi-ventricular failure**
- **POD8: Percutaneous VAD placed due to worsening function c/b right upper extremity limb ischemia**

- **POD10: Emergent LVAD (HeartMate 3) due to ongoing support needs not met by Perc VAD**
- **Post-op further complicated by significant vasoplegia, severe RV dysfunction and TR**
- **PPD #41: LVAD flows improved, patient weaned from inotropic/vasopressor support and ultimately discharged**

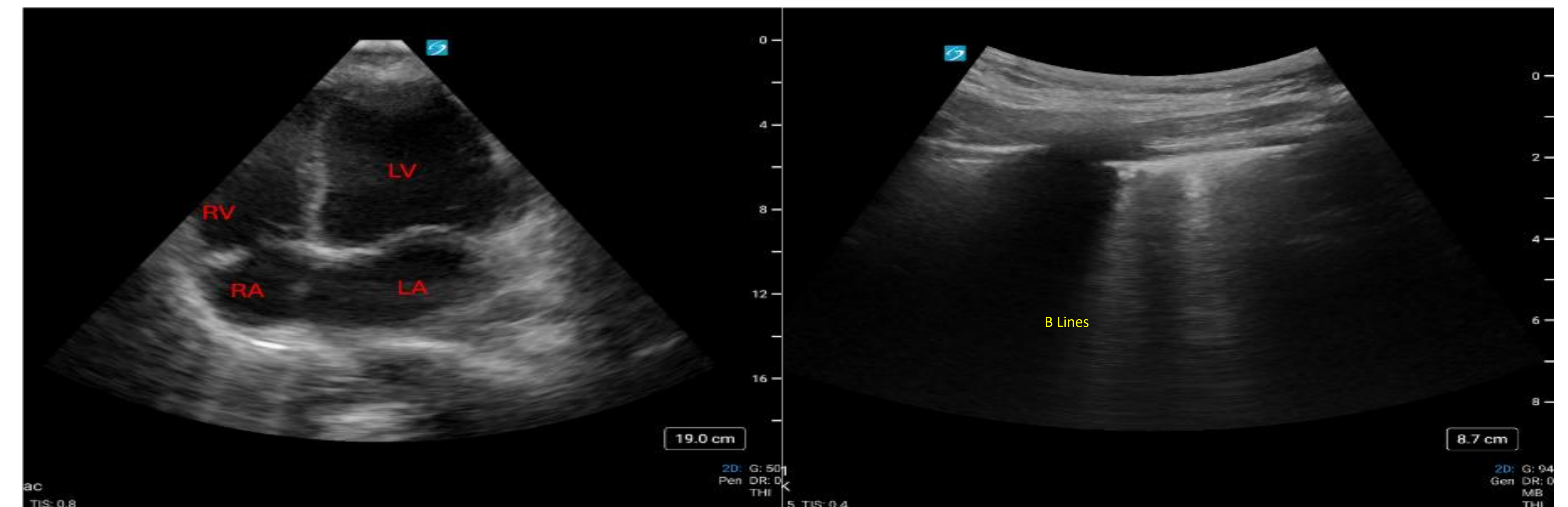


Fig 1. Intra-operative POCUS

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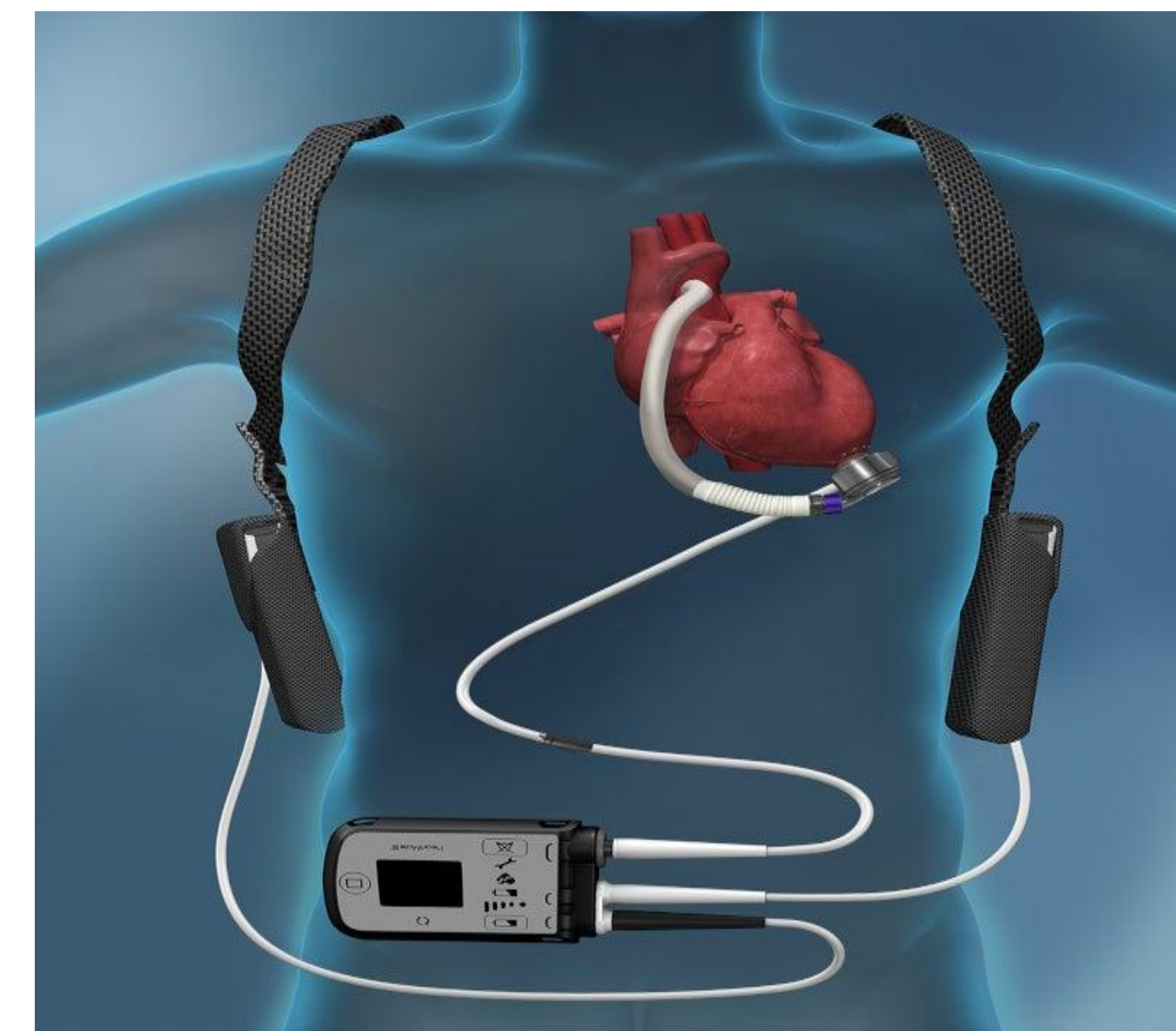
High perioperative risk: Severe PPCM can cause rapid hemodynamic decompensation, particularly during labor and early postpartum due to acute cardiovascular changes

Anesthetic considerations: Both neuraxial and general anesthesia pose significant risks in patients with limited cardiac reserve and require careful selection and management

Multidisciplinary approach: Coordinated perioperative planning is critical for optimizing outcomes

Advanced monitoring: Vigilant hemodynamic monitoring with invasive modalities and bedside POCUS enables real-time assessment and decision-making

Early mechanical support: Timely escalation to ECMO can be life-saving



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