

BACKGROUND

- Heart disease remains a leading cause of maternal mortality in the US
- Given the peripartum physiologic changes, concomitant heart failure presents a significant threat to both mother and fetus
- Multidisciplinary care planning is critical to optimize patient outcomes

CASE:

39yo G1P0 at 35w6d with asthma, IDDM, obesity (BMI 53) presented to the ED with new onset dyspnea, 20 lb weight gain, and SIPE with severe BP

Primary Cesarean Section vs Induction of Labor? The Challenges of a Complex Cardiac Case

Heidi M. Heyman, MD; Jennifer Tripi, MD; David Mayer, MD

CASE

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PRE-OP

- Admission to cardiac ICU (CICU)
- TTE: LVEF of 20-25%, severely dilated LV
- CARPREGII: 8 (>41% risk of cardiac event)
- Medical optimization prior to delivery:
 - BP management & diuresis
 - Multidisciplinary planning:
 - Cardiology & cardiac surgery
 - Obstetrics
 - Obstetric & cardiac anesthesia
- Worsening preeclampsia, anticipated difficult airway making emergent GETA risky, and logistical staffing challenges warranted an urgent C-section as the safest delivery option

INTRA-OP & POST-OP

- A-line, CVC & 2 large bore IVs
- Epidural slowly titrated
- Femoral venous and arterial catheters placed to allow expedited VA ECMO cannulation if necessary
- Serial TTE exams and CVP
- After delivery:
 - PPH (QBL 1350 mL) from uterine atony
 - Epinephrine infusion
 - Increased oxytocin
 - Cytotec administration
- Recovered postpartum in the CICU with close hemodynamic monitoring
- Discharged one week later

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DISCUSSION

- Given the high mortality associated with peripartum heart failure, complex care planning is critical to optimizing patient outcomes
- There is ongoing debate regarding the safest mode of delivery in cases such as this
- Our institution continues to face logistical challenges to facilitate an induction of labor for such a complex patient, particularly ensuring all care team members are readily available should decompensation occur and having close proximity to an operating room
- Super obesity presents additional challenges such as anticipated difficult airway, line placement, ECMO cannulation, and surgical exposure, which may delay life-saving measures for both mother and fetus, and also favors a planned C-section

REFERENCES

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2. Anthony J, Sliwa K. Decompensated Heart Failure in Pregnancy. *Card Fail Rev.* 2016 May;2(1):20-26. doi: 10.15420/cfr.2015:24:2. PMID: 28785449; PMCID: PMC5491013.