

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

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

## 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**

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### 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.