

A case of peripartum cardiomyopathy and ECMO sheaths for CD

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Patient

Multip early 30s, BMI 60, h/o CD x1 AoD, A2GDM, fam hx cardiomyopathy + early cardiac death presented 36+3/7 w pre-E, SRBP, ADHF NYHA IV _{sx}

HD 1: Admit to L&D

- pronounced orthopnea, sinus tach 110s
- CXR pulmonary edema, P:C > 9
- TTE dilated cardiomyopathy LVEF ~10-20%
wo regional wma, nl RV function, no valvulopathy
- mWHO IV, est. cardiac event rate >27%

HD 1: Xfer to ICU

- arterial line (labs, difficult NIBP)
- diuresis, antihypertensives, levetiracetam (magnesium held for pulmonary edema)

HD 2: Progression of pre-E

- Successful diuresis overnight
- Improved orthopnea
- Worsening htn req nicardipine infusion

Pre-Op (in ICU)

- CT surgery consult, eval/plan for mech support
- Large-bore PIV x2
- Epidural by DPE w negative test dose

PPCM and ECMO sheaths for CD: Delivery and Recovery

OR Course

- Surgical anesthesia via epidural catheter
- Vascular sheath placement x2 by CT surgery, ECMO on standby
- Uncomplicated CD, vigorous neonate, BTL
- Oxytocin 2 u/2 mL bolus x1, 6 u/hr gtt
- EBL 800 mL, crystalloid 500 mL, UOP 350 mL
- Furosemide IV x2 in OR
- Off nicardipine, on norepinephrine 0.01 mcg/kg/min at end of case, no mech support

Post-op Course

- POD0: diuresis held by ICU overnight
- POD1: flash pulmonary edema, bipap, diuresis, afterload reduction w nitroprusside
- POD8: d/c home RA, GDMT
- Seen in cardiology clinic a few weeks later, NYHA II sx, follow-up TTE, CT cors, sleep study ordered
- Lost to follow-up

PPCM and ECMO sheaths for CD: Discussion Points

Pre-procedural optimization

- Multi-disc care coordination
- Volume status, tolerance of supine positioning
- Plan for vascular access (PIV, AL, CVL, ECMO sheaths)
- Regional block→venue, spinal vs epidural
- Blood products/resuscitation equipment

Intra-procedural

- Mechanical support options
- Hemodynamic changes, myocardial workload w sympathectomy, uterotonic mgmt
- Diuresis w anticipated fluid shifts

Post-procedural

- HF, DVT, CV death all highest in postpartum period (“4th trimester” maternal cardiac dz)
- Anticipate fluid shifts→potential worsening fluid overload, function, decompensation
- Return precautions, symptom monitoring, studies for return to baseline
- Secondary prevention: investigate ICM, OSA (WHO-III PH)