

ANESTHETIC CONSIDERATIONS OF SEVERE MITRAL STENOSIS IN THE PERIPARTUM PERIOD

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- Mitral Stenosis is the most common valvular heart disease complicating pregnancy
- High Morbidity/Mortality
- Requires multidisciplinary team for delivery planning
 - Maternal and fetal considerations

CASE

- 32-year-old G2P1 at 29w5d with severe rheumatic mitral stenosis
 - Admitted to CICU with HF symptoms despite prior optimization
 - Mitral valve gradient 21mmHg, area $\sim 0.6\text{cm}^2$, PASP $\sim 100\text{mmHg}$

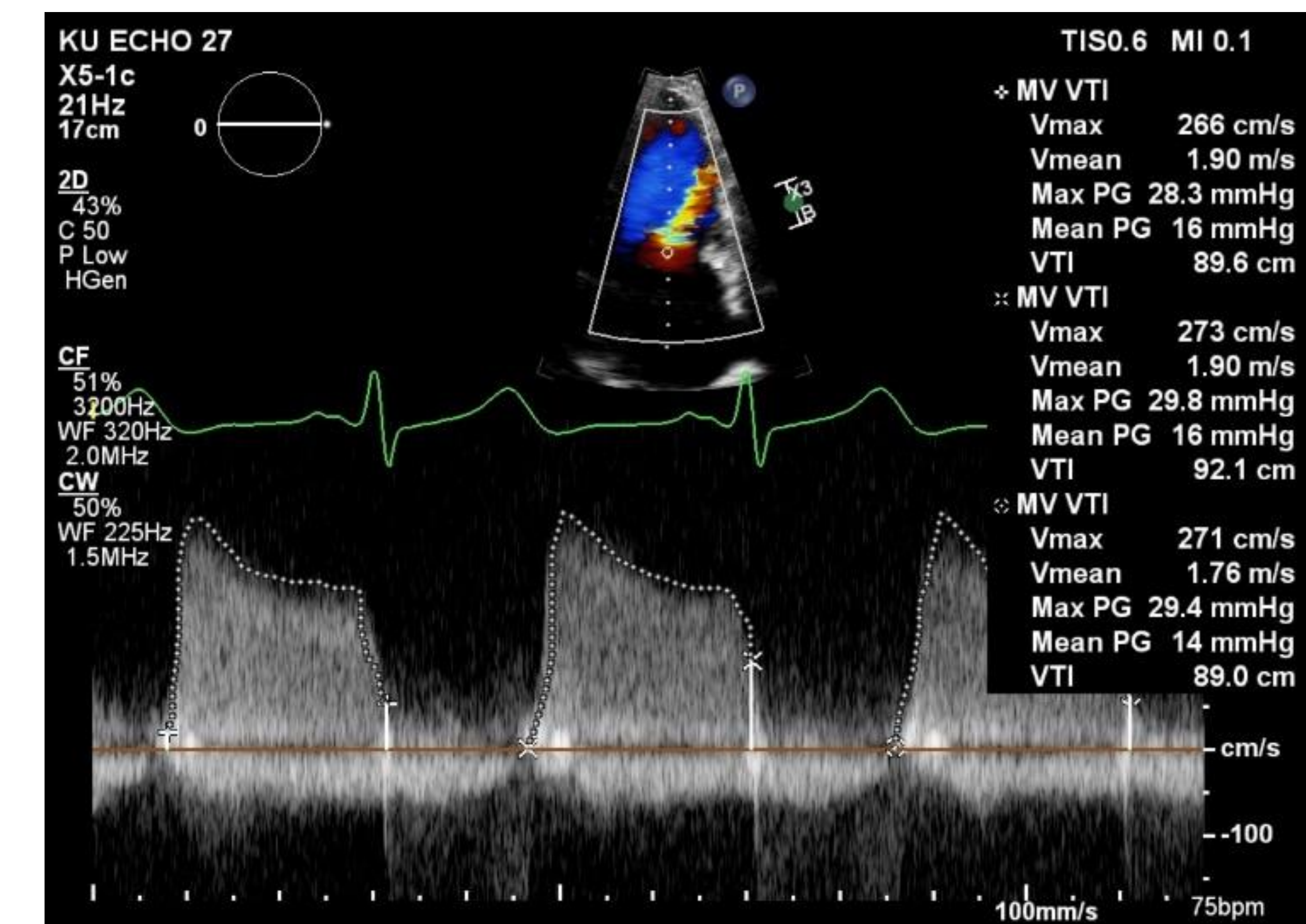
Cardiac Risk

- mWHO class: IV ($>27\%$ risk)
- CARPREG II score: >4 (41% risk)

Optimize via PBMV?

- Unfavorable anatomy (Wilkins Score: 10)
- High maternofetal risk profile

- Scheduled C-Section at 31w1d
 - CVOR with VA-ECMO on standby
 - Anesthesia via dural puncture epidural
 - Lines: CVC, PAC, A-line
 - Femoral sheaths placed at start of procedure by CTS
- Postoperative Course
 - Mechanical MVR via mini-thoracotomy 10 weeks postpartum



CONSIDERATIONS/ DISCUSSION

- Preoperative management
 - PBMV suggested but risks of intervention must be considered
 - Expectant management and scheduled delivery in a controlled setting may be appropriate based on fetal development and maternal optimization
- ECMO standby
 - Prophylactic sheath placement often beneficial
 - “Overuse” of ECMO standby is expected

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3. Meng, M et al. (2023). Circulation 147(11): e657-e673.
4. Marudo, CP et al. (2025). J Cardiothorac Vasc Anesth 39(7): 1844-1852.