

THE DOMINO EFFECT: SPONTANEOUS ABORTIONS AS A SEQUELA OF EISENMENGER SYNDROME:

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Background

- Eisenmenger's syndrome (ES) is a congenital cardiac abnormality in which a significant chronic left-to-right shunt results in pulmonary arterial hypertension and a reversal of the shunting direction.
- A woman with ES should ideally avoid conception given the increased risk of unexpected fetal demise and maternal mortality.

Case presentation

- We present a case of a 35-year-old female patient G3, P0, at 9 weeks gestation with reported PMHx of erythrocytosis and spontaneous abortions who presented to the hospital with complaints of vaginal bleeding and worsening SOB.
- She was noted to have a Hct of 70 and a Hb of 23.8, with SaO₂ of 86% on room air upon initial evaluation

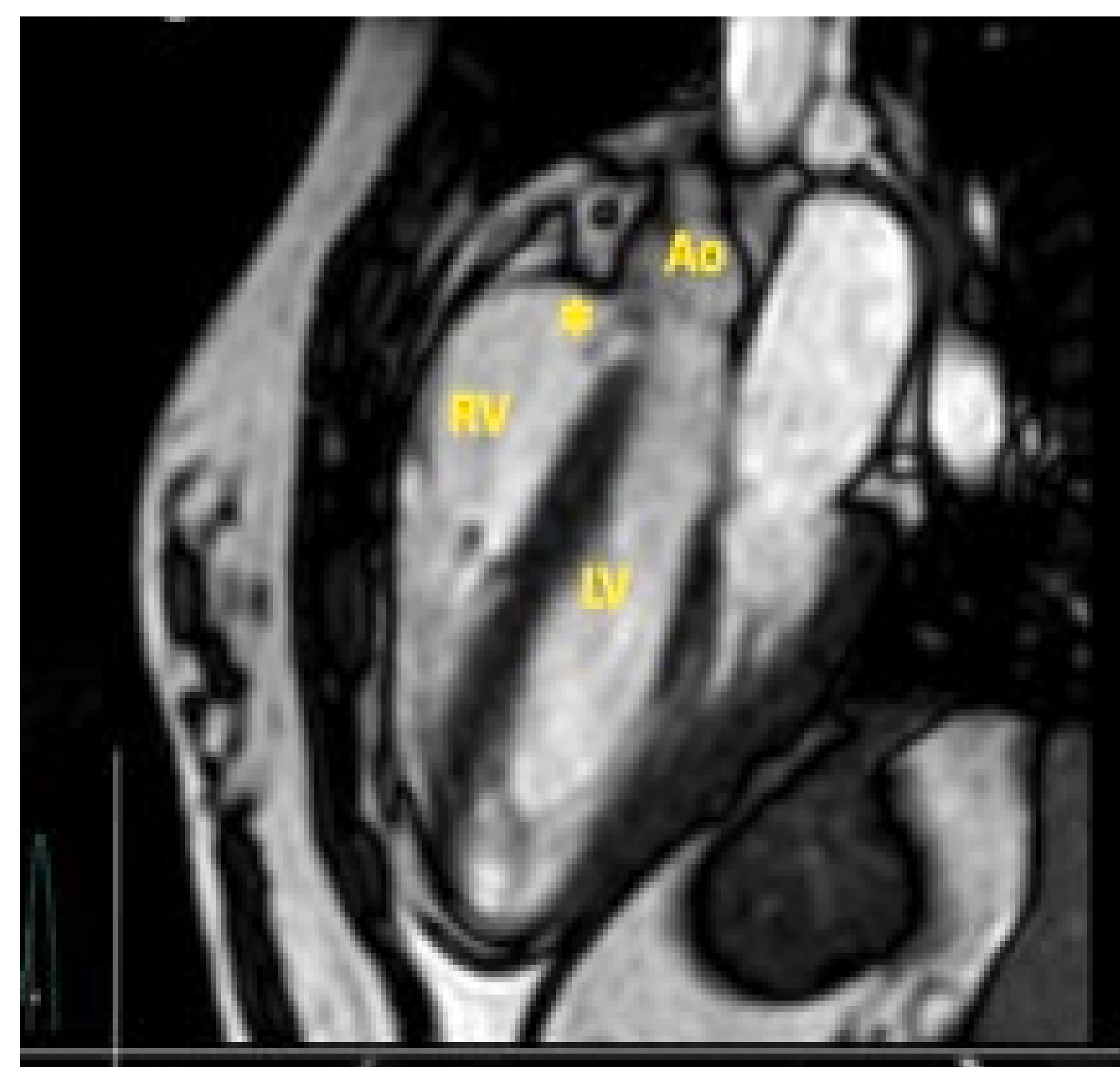
Decision Making

- A transthoracic echocardiogram revealed a medium to large peri-membranous ventricular septal defect (VSD) measuring 6 mm with predominantly right to left shunting with a QP/QS ratio of 0.66. The patient's right ventricle was dilated with systolic and diastolic septal flattening

Decision Making (continued)

- suggestive of pulmonary hypertension.
- CMR confirmed enlargement of the right and left ventricular areas at both end-systole and end-diastole (Figure 2).
- Further workup revealed persistent hypoxia caused by ES secondary to VSD. JAK2 studies were negative, ruling out a myeloproliferative neoplasm.
- Measured beta-hCG was not in range with 9-weeks of pregnancy.
- Additionally, the pregnancy USS revealed a non-viable fetus, concluding that a spontaneous abortion was inevitable.
- Transfer to another facility for a higher level of care and evaluation by an adult congenital heart disease cardiologist was not available due to financial reasons. She was ultimately discharged home on oxygen with regular outpatient follow-ups.

Imaging



CMR revealed enlargement of the right and left ventricular areas at both end-systole and end-diastole.



On physical examination, the patient was noted to have fingernail clubbing of hands bilaterally.

Conclusion

- The prognosis of ES pregnancy has not greatly improved despite contemporary advancements in obstetric and cardiovascular medicine.
- Pregnancy termination is typically advised because spontaneous pregnancy loss/perinatal morbidity is about 30% and maternal mortality for women with ES is reported to be 30-50%.
- Prolonged bed rest, continuous oxygen therapy, and anticoagulation under hemodynamic observation can positively influence maternal and fetal outcomes.