Atrial Fibrillation as Maternal Presentation of Mirror Syndrome

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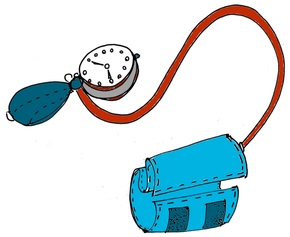
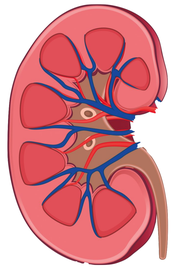
Background

- Mirror syndrome is a rare and underdiagnosed condition[1]
- Common presenting maternal symptoms:

Weight gain (90%)

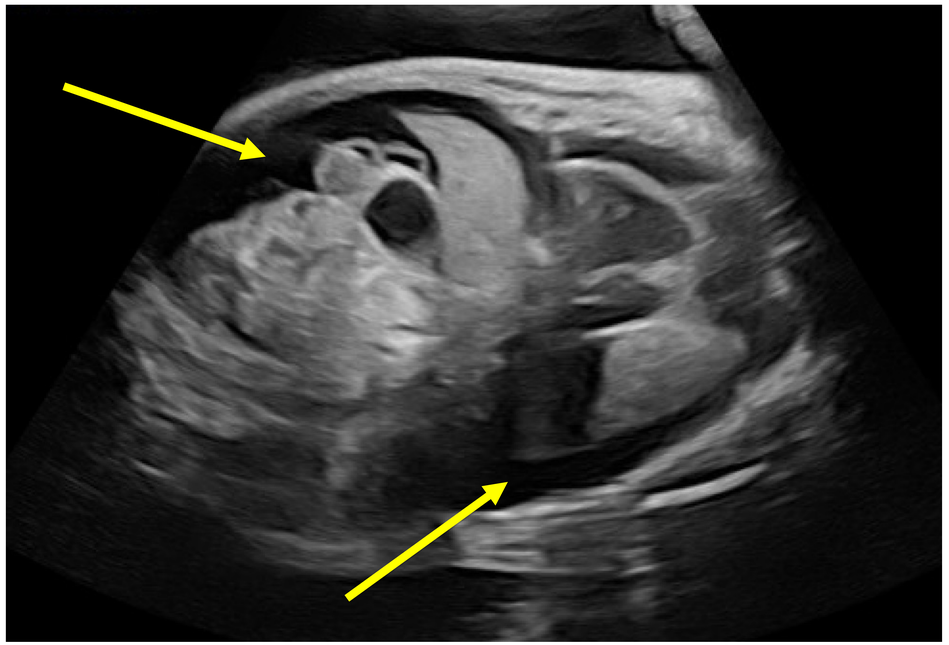


Hypertension (60%)



Proteinuria (40%)

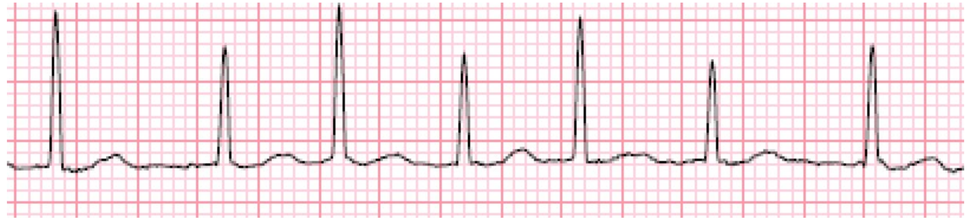
- Pathophysiology likely related to aberrant placental function



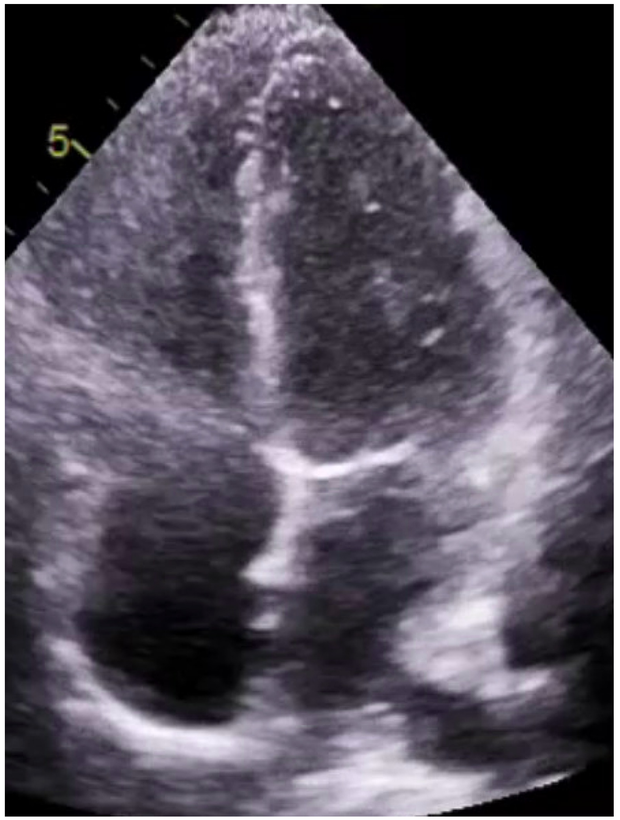
Fetal structural survey revealing pleural effusions, ascites, and pericardial effusion

Case Presentation

- 36-year-old G2P1 at 35 weeks gestation
- US with fetal hydrops after presenting for abdominal trauma
- Pt reported palpitations → ECG with atrial fibrillation with RVR
- Ddx should include structural and physiologic possibilities
- Thorough evaluation revealed no clear cause
- Rate control initiated with metoprolol and diltiazem
- Patient delivered via urgent cesarean delivery
- PPD#1 reverted to normal sinus rhythm
- Discharged home with Holter monitor and metoprolol



ECG rhythm strip revealing atrial fibrillation with rapid ventricular response



Maternal apical four chamber

Discussion

- Dysrhythmias are rare in pregnancy and are associated with greater rates of maternal and fetal complications, including death[4]
- Evaluation for underlying structural and physiologic conditions is imperative
- Management of atrial fibrillation is dependent on hemodynamic stability, underlying cardiopulmonary pathology, and gestational age[2]
- Management of mirror syndrome focuses on maternal symptomatic management and treating the underlying fetal pathology[3]

References:
1. Braun, T. Fetal Diagn Ther 2010; 27:191-203
2. Vaidya, V. Circulation 2017; 135:619-621
3. Allarakia, S. J Perinat Med 2017; 45:1013-1021
4. Lindley, K. Clin Obstet Gynecol 2020; 63(4):878-892.