

Undiagnosed Mitral Stenosis Presenting with Arrhythmia and Pulmonary Edema in Peripartum Care: A Case Report

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- Mitral stenosis (MS) is the most common valvular lesion in pregnancy worldwide.
 - The most common cause is rheumatic heart disease.
- Undiagnosed MS can lead to maternal complications, including:
 - Tachyarrhythmias
 - Thromboembolic events
 - Heart failure
 - Fluid overload
- Physiologic changes of pregnancy may unmask undiagnosed valvulopathy.
- Prompt diagnosis and acute management is crucial in mitigating further risk.

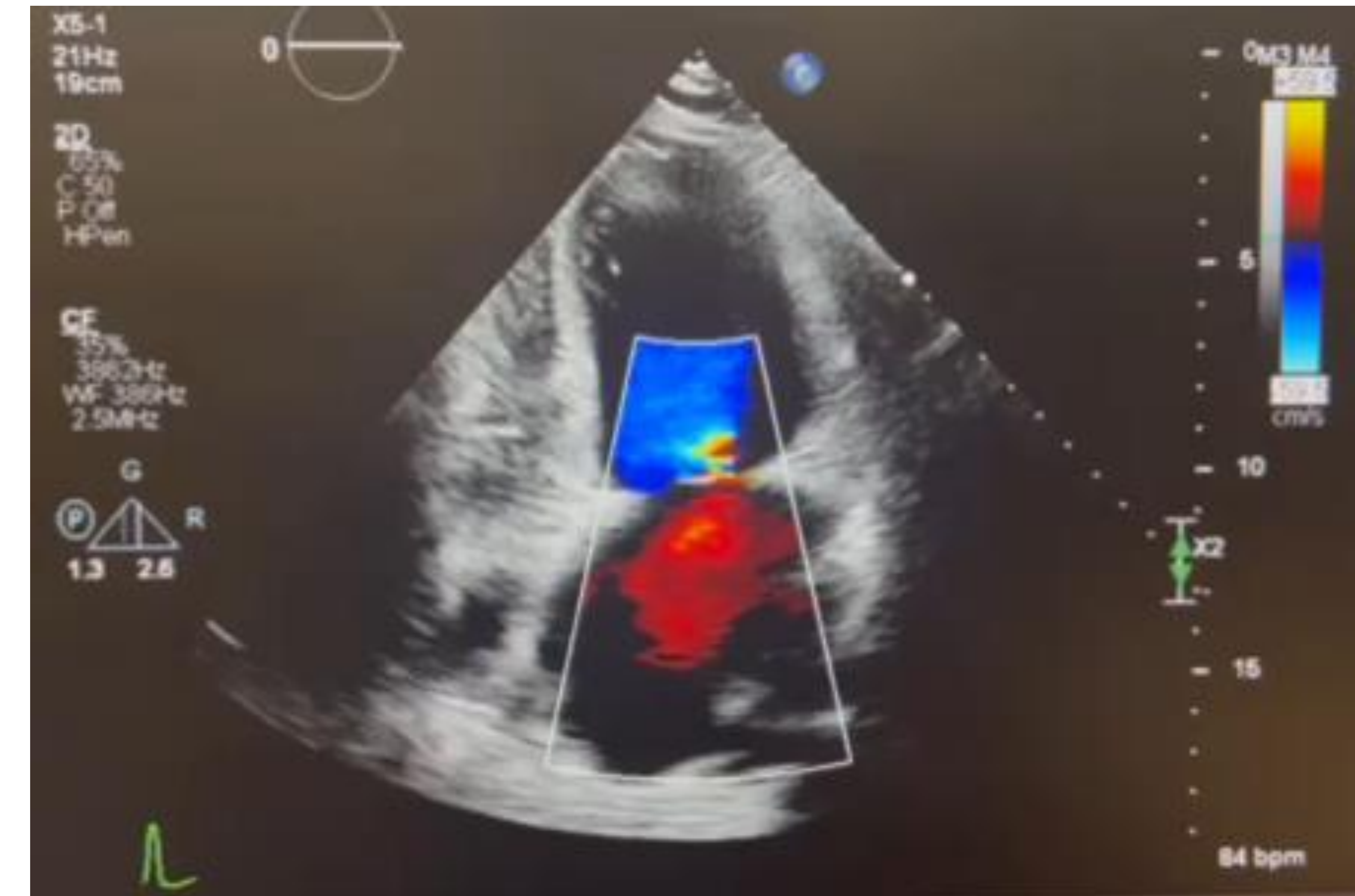


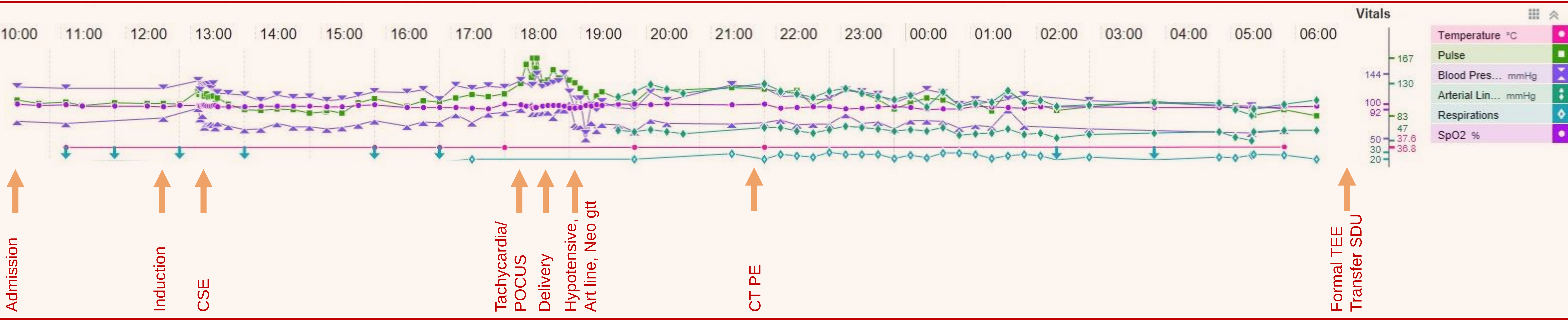
Fig 1: Formal Transthoracic Echo: Severe mitral stenosis, severe Pulmonary Hypertension, RV overload.

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- 31-year-old female, G6P1132, PMH rheumatoid arthritis, presented at 40w GA for IOL
- Labor analgesia: combined spinal epidural with standard patient-controlled epidural infusion
- Complication: Acute dyspnea with hypoxia and tachycardia during active labor
- Monitoring: Arterial Line, Telemetry, Oximetry
- Work up: CXR, CTPE, POCUS, formal TTE
- Treatment: Oxygen, diuretics, phenylephrine, beta-blockade
- Follow up: Mechanical mitral valve replacement 6weeks postpartum, longterm anticoagulation

Fig 2: Peripartum vitals and course of events



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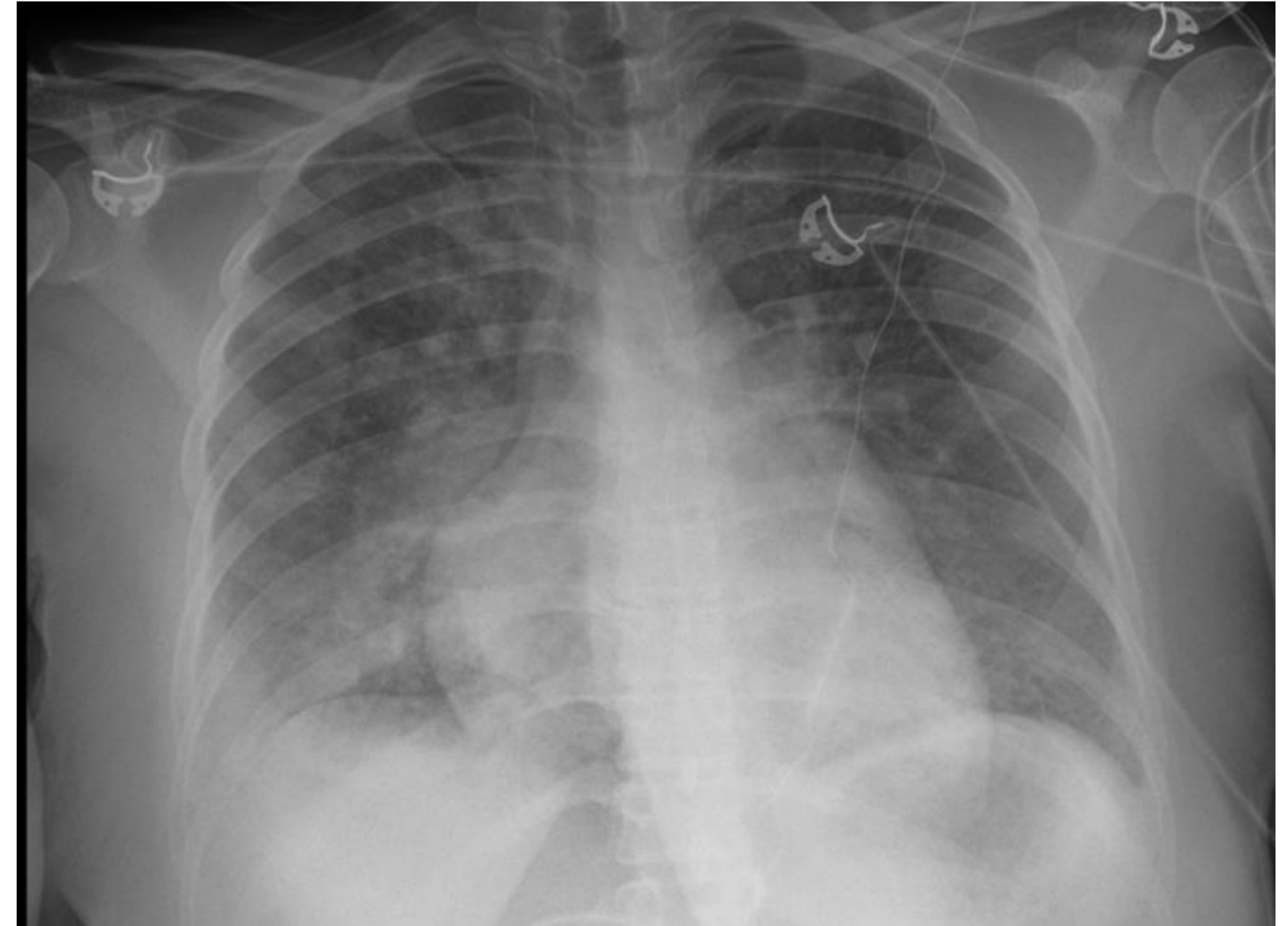


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- Parturients with MS can safely receive neuraxial anesthesia for labor with appropriate hemodynamic monitoring.
- Anesthetic goals for patients with MS include:
 - Adequate preload/afterload
 - Avoid tachycardia and arrhythmias
 - Prevent triggers of pulmonary hypertension
- Clinical signs of acute heart failure and fluid overload should be quickly addressed.
- Appropriate follow up should be ensured for potential valvular surgical intervention.
- A Multidisciplinary team approach is necessary to improve maternal outcomes.

References:

- Austin, N. Cham: Springer International Publishing, 2018, pp. 643-45
- Chestnut, DH. Philadelphia, PA, Elsevier, 2020



New moderate pulmonary edema in both lungs. Nonspecific right basilar opacity. Trace right pleural effusion. Unchanged enlarged cardiac silhouette.