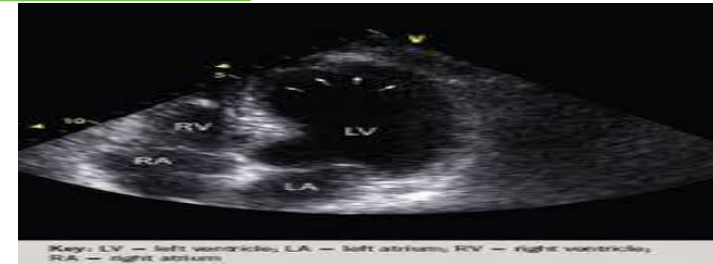


Title: **POSTPARTUM PARADOX – CASE REPORT ON REVERSE TAKOTSUBO CARDIOMYOPATHY IN POSTPARTUM**

Introduction: Takotsubo cardiomyopathy is a rare condition characterized by transient left ventricular dysfunction triggered by severe physical or emotional stress. It is more common in postmenopausal women but can also affect younger women, particularly during high-stress events such as pregnancy, childbirth, or surgery. This report details two cases of reverse Takotsubo cardiomyopathy, triggered by various factors, highlighting the importance of early diagnosis and management in improving outcomes.



Key: LV – left ventricle, LA – left atrium, RV – right ventricle, RA – right atrium

- ❖ 28-year-old woman, underwent caesarean section, following which she developed hypotension and tachycardia during extubation. **ECG revealed global ST-segment depression**, prompting further cardiac evaluation. Echo **revealed apical ballooning of the left ventricle with severely impaired contractility and EF of 33%**. There was reduced systolic function at the apex and hypercontractility at the basal segments, a hallmark of reverse Takotsubo cardiomyopathy. A follow-up echo showed significant improvement, EF increasing to 63%
- ❖ 25-year-old 33 weeks of gestation with severe preeclampsia underwent an emergency preterm caesarean section. Postoperatively, she developed tachycardia. **Echo revealed significant LV dysfunction with an EF of 20%. The left ventricle showed marked dilation, and there was reduced contractility**, particularly in the apical regions, consistent with reverse Takotsubo cardiomyopathy. Repeat echo showed partial improvement in left ventricular function, with the EF increasing to 40%. EF further improved to 62%, with minimal dilation of the left ventricle, and normal systolic function, signifying a substantial recovery.

Discussion: RTTC is a subtype of stress-induced cardiomyopathy, characterized by basal hypokinesia and preserved or hyperdynamic apical motion of the left ventricle, which distinguishes it from the classic form of Takotsubo. It is triggered by acute stressors that lead to a surge in catecholamines, causing myocardial injury and transient LV dysfunction. Pregnancy-related hypertension, contributes to a hyperadrenergic state that can lead to myocardial injury. Patients often present with chest pain, shortness of breath, and ECG changes mimicking acute coronary syndrome. Echo - **basal hypokinesia or akinesia with preserved or hyperdynamic apical motion, leading to the "reverse" ballooning of the left ventricle, reduced ejection fraction (EF) and diastolic dysfunction.** Management is largely supportive. Beta-blockers, ACE inhibitors are commonly used to manage the hypertensive response and prevent further myocardial stress. The prognosis for RTTC is generally favourable, with most patients showing complete recovery of left ventricular function within days to weeks.

Conclusion : It is a critical condition that obstetricians and cardiologists must not overlook, especially in the wake of severe pregnancy-related stressors. RTTC can mimic life-threatening cardiac events, but with swift diagnosis and tailored management, outcomes are typically favourable. Early recognition through echocardiography, aggressive blood pressure control, and close monitoring can prevent further complications and ensure recovery. This case series serves as a reminder to stay vigilant, as timely intervention can turn a potentially life-threatening condition into a full recovery—securing both maternal and fetal health.

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