Reverse Takotsubo Cardiomyopathy in peri-partum period

A case report.

Rasika Jagtap, Suganya Sukumaran, Damayantha Watthuhewa, Manoj Ravindran.

George Eliot Hospital NHS Trust

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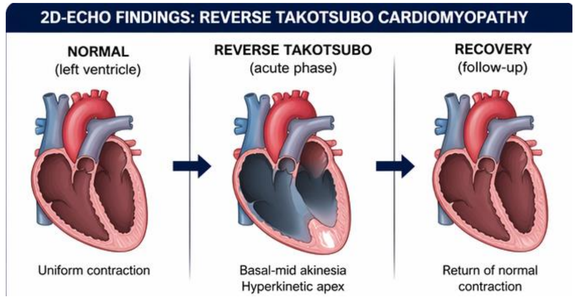
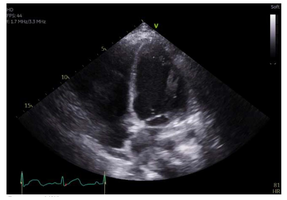
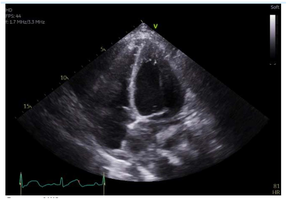
Introduction

- Takotsubo cardiomyopathy is a form of Left Ventricular dysfunction with distinct wall motion abnormalities in the absence of coronary artery disease[1].
- It is precipitated by excessive emotional or physical stress and usually has a complete resolution within weeks of diagnosis[1].
- The condition's broad spectrum of presentation can make it challenging to differentiate from other common peripartum complications.

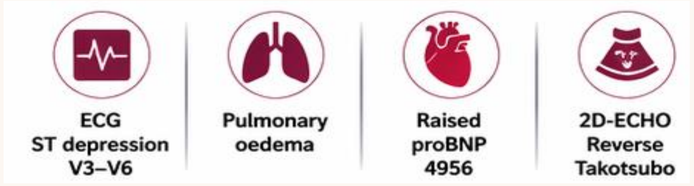






Case Report

- A 32year old Gravida2Para1 female with twin pregnancy needed an emergency caesarean section for foetal distress. Her present and past medical history was insignificant.
- She had significant blood loss intra-operatively of 4.5 litres.
- Following this in Obstetric HDU she was observed to be persistently hypotensive despite optimum resuscitation with crystalloids and blood products.
- Obstetric examination ruled out any further uterine bleed.
- The patient complained of chest pain post-operatively followed by increased oxygen requirement. Investigations revealed,



- These findings led to a cardiology referral and 2D-ECHO revealed; mildly dilated left ventricle with severe systolic impairment in the context of basal-mid akinesia and hyperkinetic apex, suggestive of reverse Takotsubo Cardiomyopathy.
- Her management included vasopressors, Non-invasive ventilation and heart failure medications, Furosemide, Dapagliflozin, Bisoprolol and Spironolactone.
- Her symptoms were transient that responded to supportive treatment on ITU.
- She was discharged within 48hrs from ITU with heart failure medications.
- A follow-up cardiac MRI showed that her cardiac function had come back to normal with a couple of weeks.

Discussion

- Takotsubo cardiomyopathy is rare form of cardiomyopathy encountered in peri-partum period.
- Even rarer is the diagnosis of reverse Takotsubo cardiomyopathy which comprises of 1-23% of the total Takotsubo cardiomyopathy cases encountered globally[2].
- Though rare Takotsubo cardiomyopathy should be considered as a differential diagnosis when managing patients with cardio-respiratory symptoms on labour ward.
- It needs a multi-disciplinary approach to management, with strict control of haemodynamic variables and cardiac function, thereby ensuring optimum recovery of the patient.

Key Take-home Message

Reverse Takotsubo Cardiomyopathy, though rare should be considered in peri-partum patients with unexplained cardiogenic shock or cardio-respiratory compromise. Early recognition and supportive management lead to complete and rapid recovery.

References

1.Hernandez-Guajardo D.A., Solis J.G, Flores-Ramirez R, et al. Failing in reverse: a case report of reverse Takotsubo syndrome complicating peripartum. European Heart Journal-Case Reports. 2023;7:1-5.
2. Hamza H. Awad, Ashley R. McNeal, Hemant Goyal. Reverse Takotsubo cardiomyopathy: a comprehensive review. Annals of Translational medicine. 2018; 6(23):46.