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Case Report

A rare case of Takotsubo cardiomyopathy in post cesarean female

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ABSTRACT

Takotsubo cardiomyopathy, commonly known as stress cardiomyopathy or broken heart syndrome, is a temporary heart condition predominantly occurring in post-menopausal females. It is usually preceded by an intense psychological or physical experience. This is a case report presenting a 32-year-old $G_3P_2L_2$ patient at 41 weeks of gestation who was diagnosed with this condition shortly after her cesarean.

Keywords: Post- partum period, Stress, Cardiomyopathy

INTRODUCTION

A case series from 1991 following 5 Japanese patients was the first documentation of Takotsubo Cardiomyopathy. The patients hearts resembled a traditional Japanese octopus trap called Tako-Tsubo pot.

The name of the syndrome was thus coined after this similarity in appearance.[1]

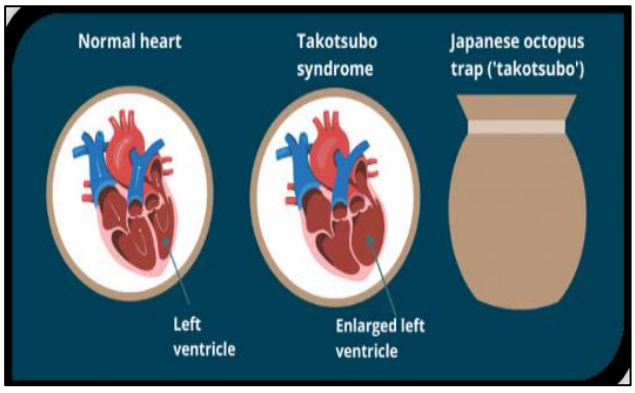

Figure 1: Pictorial representation.

Stress hormones are released in response to a triggering event which changes the shape of the left ventricle, the heart's main pumping chamber, preventing it from pumping blood effectively. Patients diagnosed with this syndrome are also usually found to have excess catecholamine. There is not much documentation about this condition's clinical features, however, this syndrome is reversible, and most patients fully recover except for a few individuals who may suffer from life-threatening complications during the initial presentation.[2]

CASE REPORT

A 32-year-old G3P2L2 2 previous full term normal deliveries; presented at 41 weeks of pregnancy with history of high-grade fever & cough since 4-5 days.

Emergency 2nd stage cesarean section was done for indication of meconium-stained liquor and fetal distress. Atonic PPH was there which was managed with uterotonics. Patient was shifted to ward. Within few minutes of shifting the patient's pulse and BP were not recordable, palms were cyanosed.

Figure 2: Echo.

Immediately noradrenaline drip was started and patient was shifted to ICU, under intensivist care. 15 minutes later feeble pulse was felt and BP was recorded 100/60. DIC profile was sent and immediate bed side X-ray and bed side USG abdomen was done.

All investigations came back as normal except for chest x-ray in which mild oedemas in lungs was suggested. Repeat blood investigations were done after 4 hours which were normal; there was no drop in hemoglobin and platelet. Noradrenaline drip was continued.10 hours after the surgery the intensivist did ECG and echocardiography and the diagnosis of Takotsubo cardiomyopathy was made.

Patient was kept on supportive treatment and was discharged on day 12 of the caesarean.

DISCUSSION

Takotsubo cardiomyopathy is induced by extremely stressful events. In this case, the patient's prolonged labor and viral fever.[1]

The exact etiology of Takotsubo cardiomyopathy is not fully understood but several mechanisms are hypothesized to be the cause. The cardiac effects of catecholamines have been well established, and it is a key component in the pathogenesis of Takotsubo cardiomyopathy. It is generated in excess amounts in response to sympathetic activation in Takotsubo cardiomyopathy patients. Catecholamines contribute to myocardial damage and excessive stimulation of cardiac adrenergic receptors leads to transient left ventricle hypo-contraction.

The regional attribute of this condition where the apical part of the heart is affected, and the base is spared, makes it distinguishable from other heart conditions. Due to the lack of a 3 layered myocardial configuration, the apex is structurally at risk. The limited elasticity reserve makes it prone to ischemia because of its limited coronary circulation.

Takotsubo cardiomyopathy is commonly dealt with medication. Medication used includes antianginal agents, analgesics, anticoagulants, ACE inhibitors, beta blockers, calcium channeled blockers, LMWH, and PAI. The heart muscle fully heals in 2 months.[3]

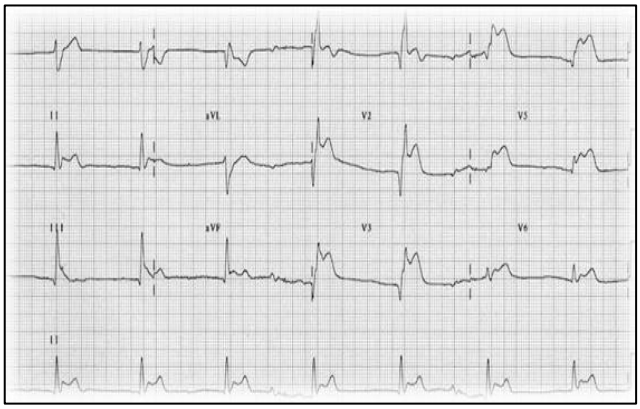

Figure 3: ECG.

CONCLUSION

While there can be several factors contributing to maternal collapse in the postpartum period, it is crucial to consider cardiac issues. Though treatable, Takotsubo cardiomyopathy can lead to death if not diagnosed early on. The leading cause of death, albeit rare, in this syndrome is the sudden onset of illness and failure to receive prompt emergency treatment. Therefore, the prognosis majorly depends upon the timely detection of the illness.

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REFERENCES

1. Neil CJA. Tako-Tsubo (stress) cardiomyopathy: pathophysiology and natural history (Doctoral dissertation). 2014.
2. Ghadri JR, Ruschitzka F, Lüscher TF, Templin C. Takotsubo cardiomyopathy: still much more to learn. Heart. 2014;100(22):1804-12.
3. Komamura K, Fukui M, Iwasaku T, Hirotani S, Masuyama T. Takotsubo cardiomyopathy: pathophysiology, diagnosis and treatment. World J Cardiol. 2014;6(7):602.

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