



TAKOTSUBO CARDIOMYOPHY DUE TO OVARIAN TORSION



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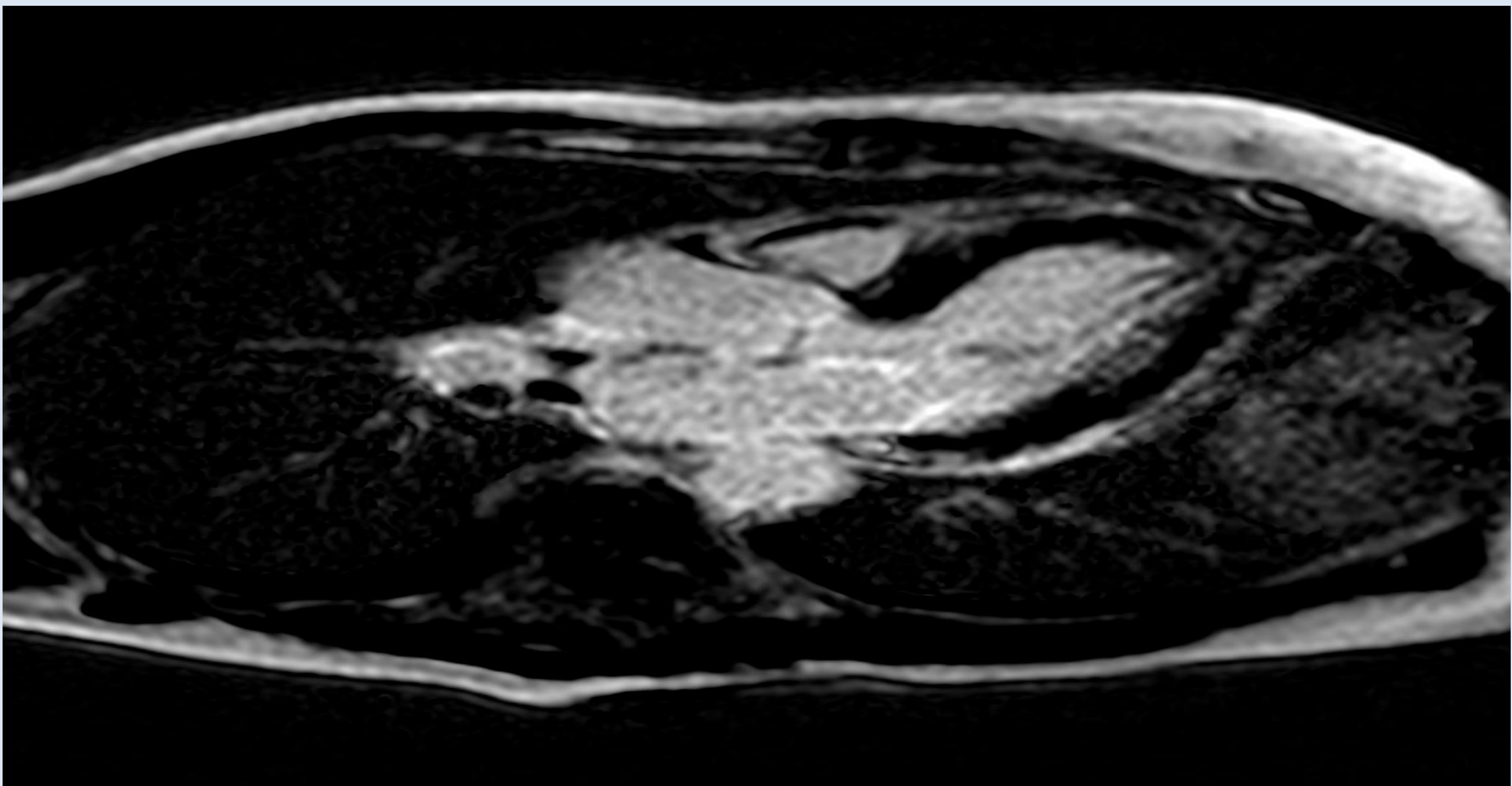
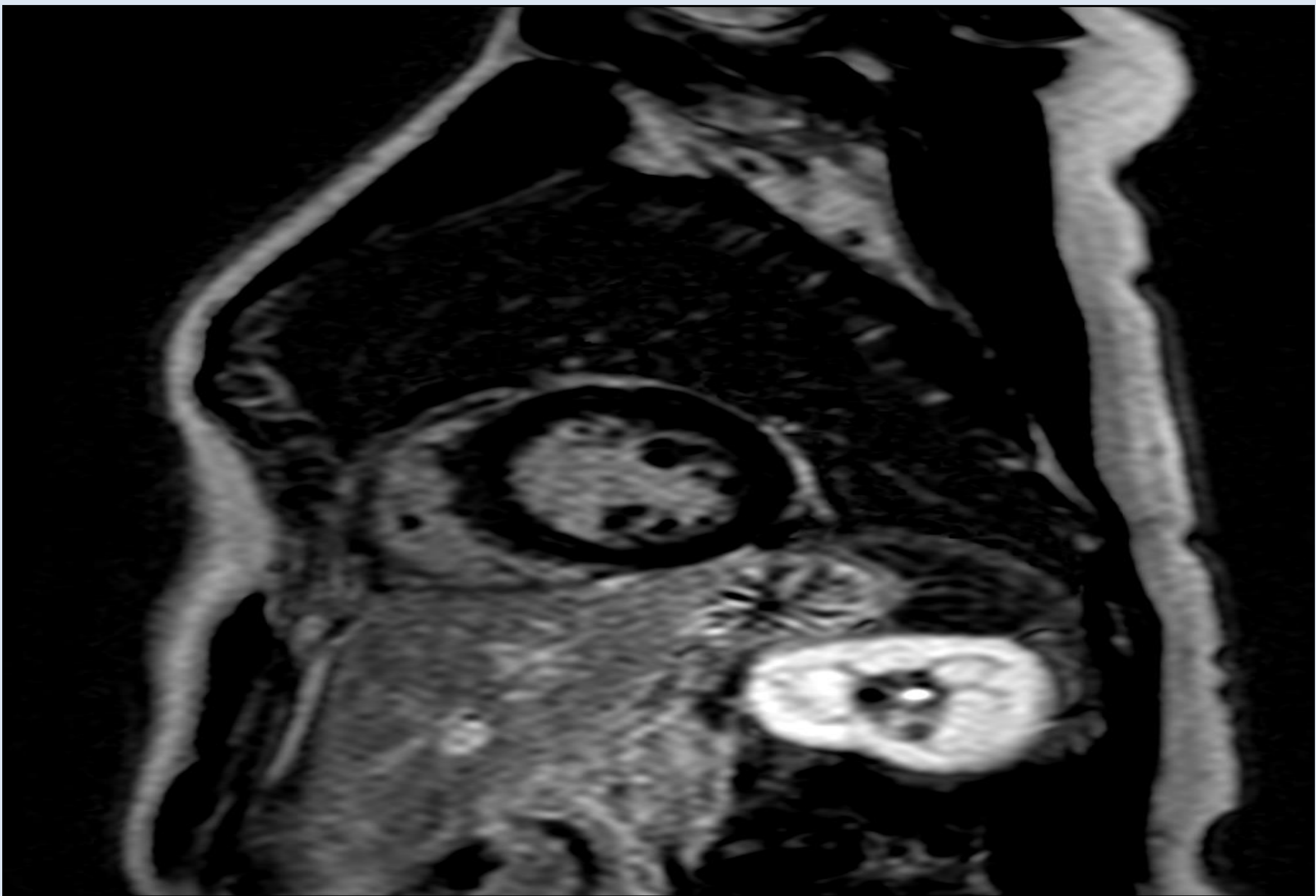
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INTRODUCTION

Transient acute cardiomyopathy caused by severe abdominal pain called Takotsubo Cardiomyopathy (TC) is characterized by acute left ventricular wall dysfunction. Patients present with acute chest pain and dyspnea with electrocardiographic (ECG) abnormalities mimicking acute myocardial infarction and elevated cardiac troponin. We report a case of TC in a patient with severe abdominal pain due to ovarian cyst torsion.

CASE SUMMARY

A 66 years old lady attended accident and emergency with severe colicky lower abdominal pain, associated with nausea and vomiting, of one day duration localised in the left iliac fossa. An urgent abdominal computerised tomography (CT) scan showed a large left ovarian cyst (8.5 x 6 cm). She developed acute shortness of breath, ECG showed deep q waves V1-V3, ST elevation, raised troponin T levels and mild pulmonary oedema. On echocardiography severely impaired left ventricular systolic function was noted along with akinetic mid to apical region, suggestive of TC. Cardiac magnetic resonance imaging excluded myocardial infarction, inflammation and infiltration. Following commencement of treatment (furosemide, ramipril and bisoprolol), she improved significantly with resolution of abdominal pain and subsequently discharged. Six weeks later a cardiology review showed a normal echocardiography and the treatment was discontinued.



Cardiac mri scan (ecg gated): 4 chamber cine images show hypokinetic apical and mid segments with normal contractility of basal segments, typical of takotsubo cardiomyopathy. Note left ventricular hypertrophy (LV) and small bilateral plural effusion indicating a degree of heart failure. LV function was moderately impaired with ejection fraction of 47%. Late gadolinium enhanced images did not show myocardial infarction.

A gynecology review showed a reduction in size of ovarian cyst on ultrasound with normal tumor markers. The option of laparoscopic bilateral salpingo-oophorectomy was discussed, she decided for conservative management. A follow- up ultrasound after 3 months showed complete resolution of the ovarian cyst.

DISCUSSION

TC is mostly seen in postmenopausal women presenting with acute physical or emotional stress. Gynecological literature review shows only a single published case report and two in gynecologic oncology patients. The etiology of TC is not very well understood and exaggerated sympathetic stimulation play a key role in the myocardial stunning and subsequent cardiac dysfunction. It has been reported that decreased oestrogen level is involved in the pathogenesis. Oestrogen exerts various cardio protective effects including inhibition of excessive renin-angiotensin system activation and anti-oxidant effects. Reduction in oestrogen might cause TC both by indirect action on the nervous system and direct action on the heart. Most TC resolve spontaneously and life threatening complications including cardiogenic shock and systemic embolization are rare.

CONCLUSION

Acute cardiomyopathy can occur in postmenopausal women as a result of severe pain related to ovarian torsion. TC should be considered as a differential diagnosis in women presenting with severe pain and cardiac complaints in the postmenopausal population.