

ISOLATED PARACHUTE MITRAL VALVE DETECTED BY 2 DIMENSIONAL ECHOCARDIOGRAPHY & CARDIAC MRI IN ASYMPTOMATIC HEALTHY ADULT UNDERGOING NONCARDIAC SURGERY

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Abstract : 50 yrs female presented for preoperative evaluation for vaginal Hysterectomy. Preoperative Transthoracic echocardiography revealed mitral valve abnormality with only one papillary muscle having parachute appearance. Her cardiac MRI with contrast confirmed the mitral valve abnormality. Since She was hemodynamically stable, She underwent hysterectomy uneventfully.

INDEXTERMS - PARACHUTE MITRAL VALVE, ADULT, MRI

I. INTRODUCTION

Parachute Mitral Valve exists because the chordae tendinae from both mitral valves leaflets converge on a centrally placed, single papillary muscle instead of diverging to insert into two papillary muscles. PMV is a rare congenital anomaly which presents in infancy & childhood, mostly associated with other obstructive cardiac lesions like Shone's complex. Adults presenting with parachute Mitral valve are rare. Extensive search in the literature mentioned the incidence in males only. We report a female patient having parachute Mitral Valve with uneventful noncardiac surgery.

CASE REPORT

A 55 lady having uterine prolapsed – procidentia was presented to cardiology Department for preoperative evaluation for Vaginal Hysterectomy. She denied any cardiac & respiratory symptoms. Her past medical history revealed Hypertension since 5 yrs & she was recently detected to have Type 2 Diabetes Mellitus. Both were well controlled with oral medications. Her developmental history was normal without any dysmorphic features without any cardiac symptoms in childhood or during pregnancy, She had two pregnancies & normal deliveries which went uneventful.

Her HR was 78/ min, regular, BP was 120/80 mmHg in both upper & lower limbs. There was Nonradiating short systolic murmur of Grade I/VI without S3, S4 gallop. Rest of the physical examination was normal. ECG & Chest X Ray were also normal.

At first glance, something seen wrong with the mitral valve. The anterior leaflet was very large, doming and very small posterior leaflet. A short axis window in the mid ventricle showed that there was only one true papillary muscle present. The 4 chamber view made it clear that the single papillary muscle attaches to the anterior leaflet. A color window showed in addition that there was Grade I eccentric mitral regurgitation as well.

Since the 3 dimensional echocardiography was not available in the town patient was sent for cardiac MRI. Cardiac MRI was done on Siemens 1.5 T machine with contrast showed Single papillary muscle chordate from both AML & PML converged & inserted on it. This case was consistent with a congenital "parachute mitral valve"

Since the patient was hemodynamically stable & no other cardiac anomalies detected she was posted for her elective Vaginal Hysterectomy. Intra & postoperative period went uneventful & she recovered completely. Since The detected cardiac anomaly was congenital ,her siblings – brother & her children were screened for the presence of Parachute Mitral valve, But it revealed no abnormality.



Fig 1 . ECG

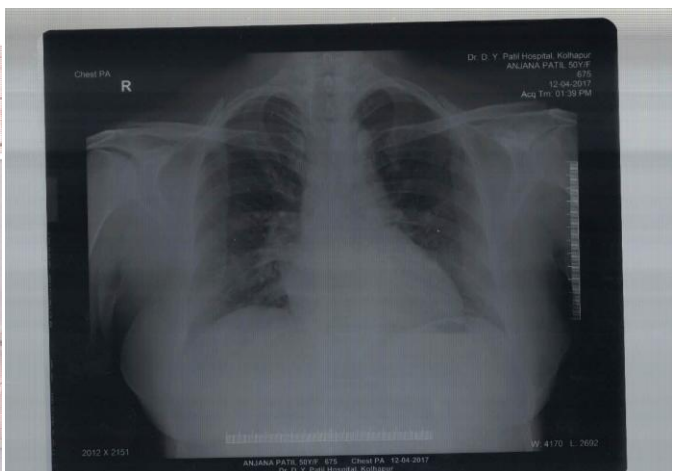


Fig 2 CxR PA view

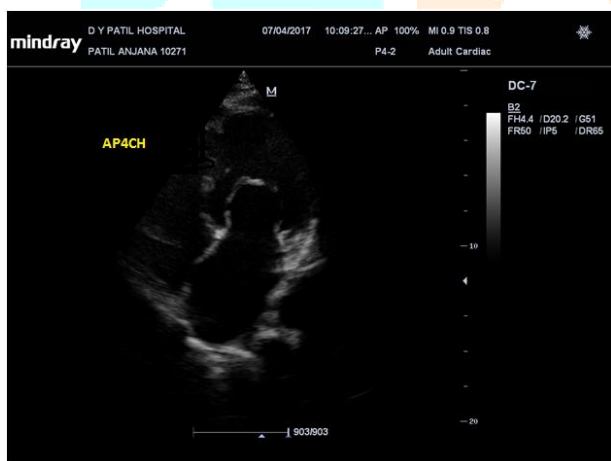


Fig3. 2 D ECHO AP4CH

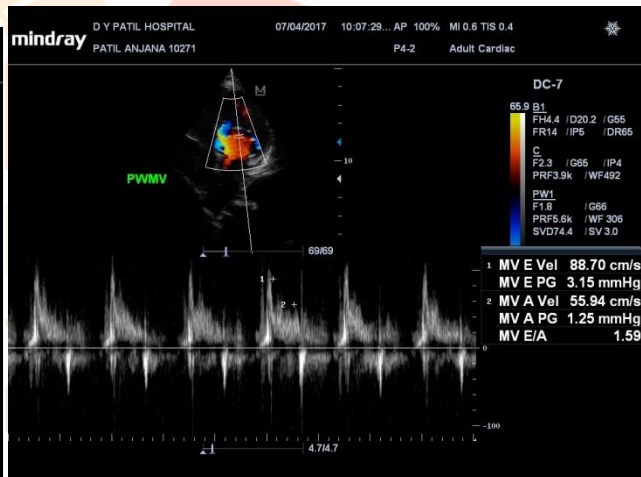


Fig 4 PW at MV

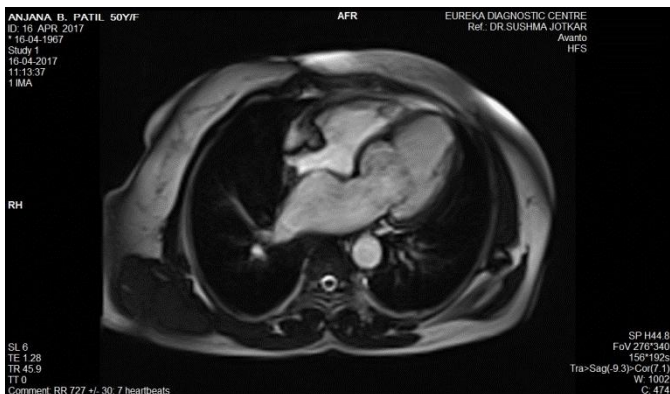


Fig5. Cardiac MRI 1



Fig 6. Cardiac MRI 2



Fig 7. Cardiac MRI 3

