Case Report

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Myxomatous Tricuspid Valve

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Abstract

We present a 25 year old boy presenting to Cardiology OPD for routine clinical evaluation before joining as staff nurse in AIIMS, Bhubaneswar, ECG showing non specific ST-T changes across inferoanterior chest leads, Echo revealed abnormally long myxomatous mitral and tricuspid valve without significant valvular regurgitation. Although myxomatous mitral valve is not to uncommon to encounter in young, myxomatous tricuspid valve is a rare entity to be encountered with.

Keywords: Myxomatous; Degeneration and Regurgitation.

Introduction

Myxomatous degeneration of mitral valve is far less common than myxomatous mitral valve. To date it has been cited most in autopsy studies. Myxomatous tricuspid valve is histologically defined as presence of abundant myxomatous tissue in spongiosa layer of the leaflet and invasion of fibrosa layer. Myxomatous tricuspid valve may be associated with chordal elongation and regurgitation secondary to prolapse of one or all leaflets. Myxomatous tricuspid valve is asymptomatic many a times, becomes incidentally detected during cardiac surgery or post mortem analysis. Due to better echo resolution of the morphoantomy of the valve, it is being more detected now a days in asymptomatic young individuals. Although histopathology well defies this clinical entity, echo-cardiography stands as an important tool to add to the diagnosis. Our case is a rare case of myxomatous tricuspid valve with myxomatous mitral valve in a young asymptomatic boy with non specific ST T changes across anteroinferior leads.

Case

Twenty five year old selected staff nurse presented to the Cardiology OPD for obtaining clinical fitness before joining AIIMS with non specific ST-T changes

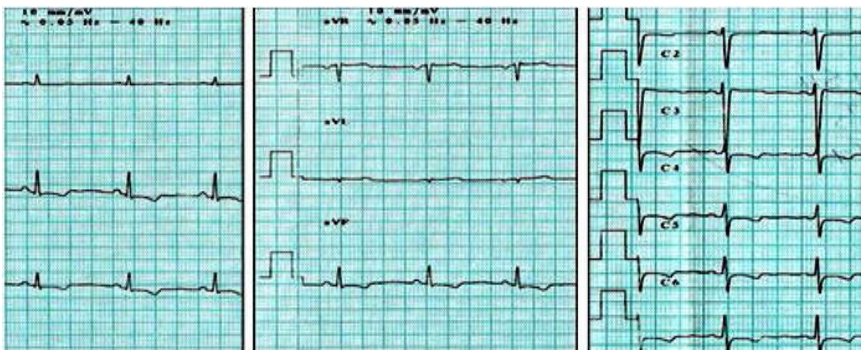

Fig 1: ECG showing non specific ST-T changes across anteroinferior leads

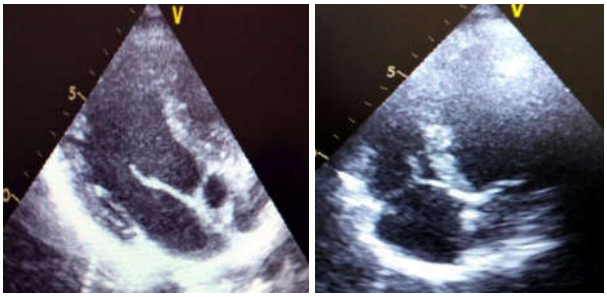

Fig. 2: Long and thick mitral valve Fig 3.Long and thick Tricuspid valve

across anteroinferior leads. He was absolutely asymptomatic with no effort dyspnea, palpitation or chest pain. Routine echo cardiography revealed abnormally long and thick anterior and posterior mitral leaflets with abnormally long and thick tricuspid valve leaflets with elongated chordee in both with no prolapse and regurgitation across mitral and tricuspid leaflets. The boy revealed no history of rheumatic fever in childhood and he had no features of obstructive lung disease in form of emphysema. Physical examination was non yielding with no features of connective tissue disorder .Myxomatous mitral and tricuspid valves were thick 6 mm each. With provisional diagnosis of myxomatous mitral and tricuspid valve disease the boy was allowed to join the institute as a staff nurse.

Discussion

Myxomatous tricuspid valve is encountered in 20% of cases across myxomatous mitral valve disease [1]. It leads to tricuspid valve prolapse and regurgitation. Most cases with tricuspid valve prolapse presents with non severe TR and they are not amenable for repair, only they become encountered in autopsy series. In large autopsy series the prevalence of tricuspid valve proplapse ranged from 0.3 to 3.2% [2]. In another autopsy study, the prevalence of tricuspid valve prolapse in tricuspid regurgitation was 7 out of 45 cases (15%) [3]. Thickened tricuspid valve also occurs secondary to rheumatic valvular involvement, connective tissue disorders, Marfan syndrome and chronic hypoxemic pulmonary hypertension causing TR. Voluminous myxomatous degeneration of tricuspid valve occurs secondary to two spectrum of diseases i.e. myxomatous mitral valve disease with involvement of tricuspid or pulmonary valve and in chronic pulmonary emphysema secondary to alpha 1 antitrypsin deficiency causing elastic and myxomatous degeneration of right sided heart valves. Although uncommon it leads to tricuspid regurgitation with gradual right atrial and ventricular dilation that results in easy fatigability, effort intolerance and congestion warranting regular follow up which we advised in this boy at least every 3-5 years. In rare cases flail leaflet, fatal chordal rupture can evade with need of emergency repair [4].

Conclusion

Myxomatous tricuspid valve, a rare entity although described much in autopsy series now a days with better echo resolution has become easier to diagnose. A close follow up in this benign lesion mandates as it may land in a catastrophe in rarest of occasions needing emergency repair. It teaches us a simple lesson: *mucoid degeneration of mitral valve is not a limited edition, can be right sided also.*

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