

## Submitral Aneurysm as a Very Rare Case of Mitral Regurgitation Coexisting With Coarctation of Aorta - A Case Report.

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**Abstract:** Generally coarctation of aorta causes left ventricular dilatation which leads to systolic murmur of mitral regurgitation but in our case of coarctation of aorta the patient had submitral aneurysm as a cause of mitral regurgitation. As such coarctation of aorta and submitral aneurysm rarely coexist.

**Keywords:** Submitral aneurysm, coarctation of aorta.

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### I. Introduction

Submitral aneurysms arise in the fibro-muscular rings of the mitral valve annuli [2]. Most of the cases of subvalvular left ventricular aneurysms described in the literature are due to congenital weakness of the fibro-muscular annuli.

### II. Case Report

A male name Prakash Toppo 16/M resident of tippudana IDM:10764, admitted on 10 august 2015 with complains of breathlessness for last two months which has increased in Severity, cough without sputum for last two months and more on lying down. There were no history of pain chest, raynauds phenomenon , headache , epistaxis , cyanosis or clubbing. patient had a history of Hypertension for last two months for which he was taking amlodipine 10mg . General condition – poor build, PR-84/min with no radioradial delay but with radiofemoral delay with both femoral pulses nonpalpable. BP-180/100 in both supine and erect posture with no postural drop .CVS examination apex beat 6<sup>th</sup> intercostal space and half inch lateral to mid clavicular line. On auscultation systolic murmur is heard all over the precordium with maximum intensity in mitral area with radiation to axilla and interscapular area .



In investigation 2D-echo-submitral aneurysm, moderate to severe MR, coarction of aorta.



### III. Discussion

Subvalvular left ventricular aneurysms can either be subaortic or submitral. The submitral aneurysms are more common than the subaortic type [1]. Chesler and colleagues [2] postulate that a dehiscence of the fibro-muscular union will result in aneurysm formation. The majority of these patients are of African ancestry, although similar conditions have been found to a lesser degree in other race groups specially in indians [[1], [3] and [4]. They have also been described as a complication in patients with infective endocarditis, tuberculosis, and syphilis [4], [5], [6] and [7]. Our patient had coarctation of aorta with systolic murmur in mitral area. We initially thought it to be the murmur of mitral regurgitation secondary to the dilatation of left ventricle due to coarctation of aorta but on echocardiography murmur was confirmed to be due to submitral aneurysm.

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