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### Case Report

# ORTNER'S SYNDROME - A RARE MANIFESTATION OF MITRAL STENOSIS

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## ABSTRACT

In the developing countries Rheumatic Heart Disease remains one of the preventable and potentially treatable condition producing morbidity and mortality among younger individuals. There are various manifestations of mitral stenosis (MS) but it is very rare to find a patient presenting with pressure symptoms of an enlarged Left Atrium and or pulmonary artery. Here we report a case of Ortner's syndrome in a young lady who was diagnosed to have left vocal cord paralysis due to Left recurrent laryngeal nerve compression in Mitral Stenosis.

**Keywords:** MS – Mitral Stenosis, Ortner's Syndrome, Rheumatic Heart Disease, Left Atrium, Pulmonary artery.

## INTRODUCTION

Mitral Stenosis remains one of the most common acquired valvular heart disease of rheumatic etiology. It affects individuals of all age groups, more so adolescents and beyond. It still remains the most important and treatable cause of death in developing countries. It often manifests with exertional breathlessness, chest pain, palpitation, hemoptysis etc. Here we report a rare case of mitral stenosis presenting as Ortner's syndrome.

Ortner's syndrome traditionally presents with progressive hoarseness of voice as a result of compression over left recurrent laryngeal nerve by an enlarged left atrium and or pulmonary artery dilatation<sup>(1)</sup>. It has been suggested that the nerve is pinched between an enlarged dilated pulmonary artery and the aorta<sup>(2)</sup>.

A 28 year old lady presented with 3 year history of exertional breathlessness and fatigability with occasional pedal edema for which she had taken only symptomatic treatment. In the preceding 3 months she noticed progressive hoarseness of voice for which she visited the present institute. There was no history of tuberculosis in the past as well as in the family.

**On Examination:** Patient was conscious and cooperative with hoarseness of voice.

Pulse: 84/minutes, regular, normal volume, normal condition of vessel wall, there was no radio radial or radio femoral delay; all the peripheral pulses were equally felt.

B.P: 104/70mm of Hg.

JVP: pressure was 9 cms with prominent 'a' wave.

CVS:

Apical impulse was situated in left 5<sup>th</sup> intercostal space along anterior axillary line, tapping in nature. P2 was palpable in pulmonary area. There was Loud S1 with an early diastolic murmur, rough rumbling in character with pre systolic accentuation in mitral area, best heard with bell of stethoscope and patient in left lateral position. Pan systolic murmur of TR was present in Tricuspid area. Loud P2 with EDM was present in pulmonary area.

RS: Normal vesicular breath sounds were present bilaterally.

PA: There was tender hepatomegaly of 6 cms below right costal margin.

CNS: There was no focal neurological deficit.

### Clinical Diagnosis;

1. Acquired valvular heart disease – Rheumatic Heart Disease
2. Mitral stenosis with Tricuspid Regurgitation
3. Pulmonary hypertension
4. In sinus rhythm, without CCF and IE.
5. Left recurrent laryngeal nerve palsy – Ortner's Syndrome

### Investigations;

**Complete blood counts, RFT, LFT, Urine routine** was normal.

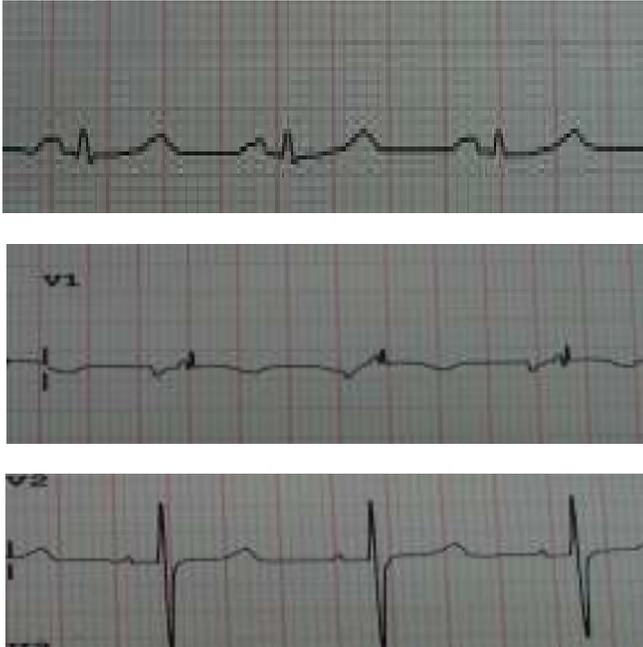
**ECG revealed** – P Mitrale, RAD, RVH (Figure: 01)

**2D ECHO;** revealed tight MS <0.8cm<sup>2</sup>, enlarged LA, Moderate TR, Pulmonary hypertension, normal LV functions. There was no evidence of clot.

**CXR-PA;** RV type cardiomegaly with straightening of Left border of heart (Figure: 02)

**CT Chest;** revealed an enlarged Left atrium and pulmonary artery (Figure: 03)

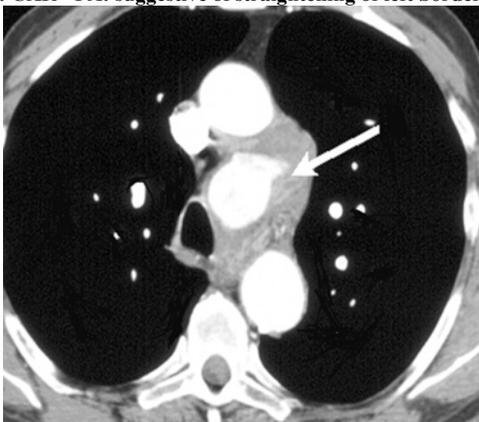
**Video laryngoscopy;** revealed left vocal cord paralysis (Figure: 04)



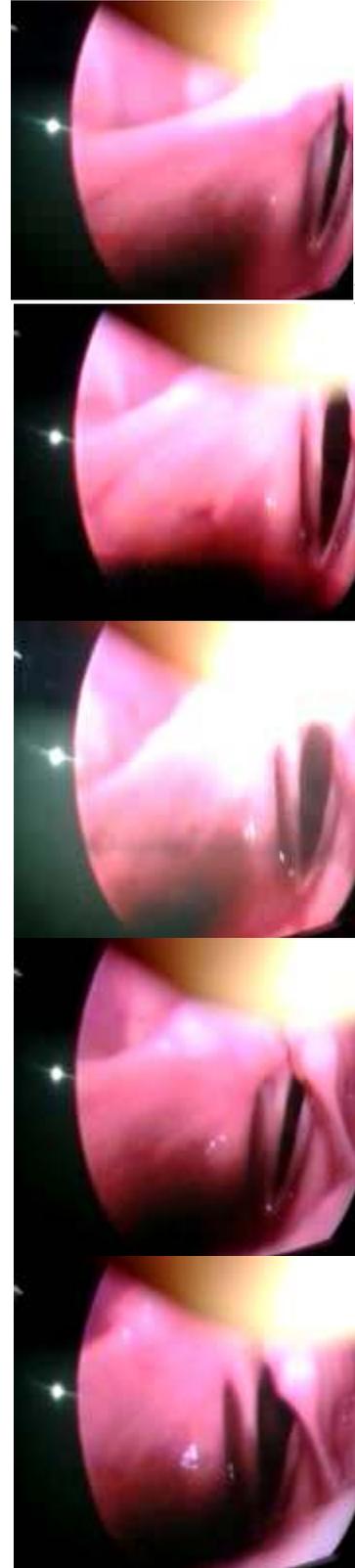
(Figure 1: ECG: Suggestive of P Mitrale, RVH)



(Figure 2: CXR - PA: suggestive of straightening of left border of heart)



(Figure 3: - CT chest; showing compression of left recurrent Laryngeal nerve)



(Figure 4: Video laryngoscopy ; showing left vocal cord palsy)

**Management:** Patient was started on symptomatic and specific treatment, later subjected to Mitral Valve Repair. Patient is presently on anticoagulation and prophylaxis for streptococcal sore throat infection.

### DISCUSSION

Though RHD is common in developing countries, patients presenting with pressure symptoms in the form of ortner's syndrome is quite rare. It is the late presentation and delay in the diagnosis of the underlying heart disease that lead to ortner's syndrome in the present case. Early intervention and reduction in the left atrial and pulmonary artery pressure reverses the disease process. Mitral stenosis remains the most common cause of ortner's syndrome, but other causes, including pulmonary hypertension, thoracic aortic aneurysms and aberrant subclavian artery syndrome have been reported<sup>(2,3)</sup>.

### CONCLUSION

There are various conditions that leads on to vocal cord paralysis, a simple clinical examination and supportive investigations helped us in arriving at a diagnosis of ortner's syndrome.

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