



## RHEUMATIC PULMONARY STENOSIS– A RARE CASE OF RVOT OBSTRUCTION

Dr. Thabish syed<sup>1</sup>, Dr. Dilip Ahir<sup>1</sup>, Dr. Mahesh Gupta<sup>2</sup>, Dr. Mihir Rathod<sup>1</sup>, Dr. Saurabh Bharadwaj<sup>1</sup>

<sup>1</sup>Resident, Dept of Medicine, NIMS, Jaipur.

<sup>2</sup>Asst. Prof, Dept of Medicine, NIMS, Jaipur.

**Abstract:** We report a rare case of rheumatic pulmonary stenosis presented with signs and symptoms of right ventricular outflow tract obstruction completely recovered after surgery.

**Key words:** Rheumatic heart disease, pulmonary stenosis, valvular heart disease.

**Introduction:** Pulmonary valve stenosis (PS) is commonly congenital in origin, but pulmonary stenosis of rheumatic origin is extremely rare<sup>1</sup>. Incidence of pulmonary stenosis in rheumatic heart disease is less than 2% in autopsy studies<sup>2</sup>. Generally Rheumatic pulmonary stenosis is detected during surgery of other valves or during autopsy but pulmonary stenosis detected with clinical suspicion is very rare<sup>3</sup>.

A 30 year old female patient came with complaints of shortness of breath for 4 years initially with slight exertion, gradually progressive over 4 years, now even with household activities associated with bluish discoloration of lips and tongue since 3 months relieved by taking rest. Patient also gives

history of swelling of feet since 1 year on-off with treatment and occasional history of chest pain. She gives a past history of fever, sore throat, joint pains 5yrs back and she had no significant history during childhood.

On examination- her vitals are stable with central cyanosis and raised JVP. Systemic examination of CVS revealed holosystolic murmur over tricuspid area and ejection systolic murmur over pulmonary area, S1 is loud and pulmonic component of S2 is accentuated.

On investigating the patient, her blood counts, liver and renal function tests are normal. ECG, Chest X-Ray showed right ventricular hypertrophy. 2D-Echo revealed- RHD with severe PS (annulus size 19mm) moderate to severe Mitral stenosis with severe tricuspid regurgitation.

Hence the diagnosis of Rheumatic PS is confirmed based on past history, present history, clinical features, and involvement of mitral valve along with pulmonary valve and

**For Correspondence:**

syedthabish@gmail.com

Received on: July 2015

Accepted after revision: August 2015

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noninvasive diagnostic tests like 2D-Echocardiography.

Eventually after stabilizing the patient, we did surgery (valve repair) of this patient and now her breathlessness has improved and her ejection systolic murmur disappeared on auscultation.

**Discussion:** Rheumatic heart disease (RHD) has life threatening impact on young adults<sup>4</sup>. Improved living standards and quality medical services have lead to decline in incidence of severe RHD now a day. Mostly patients present with serious complications like atrial fibrillation due to mitral stenosis, Congestive heart failure due to mitral or aortic regurgitation in emergency. Pulmonary Stenosis at the age of 30 yrs presenting with cyanosis is very rare. It has been written in literature that low pressure around pulmonary valve in comparison to mitral and aortic valve is the reason for its lower predilection<sup>5</sup>. Hence it has become a point of interest in reporting this case. The only drawback of my finding is, I missed to take biopsy of pulmonary valve during surgery to prove conclusively that its involvement is of rheumatic origin.

**Conclusion:** Rheumatic heart disease is a disease of young adults belonging to low socio-economic status especially in developing countries like India. It presents over wide range of spectrum, as completely asymptomatic incidentally found during auscultation by a general practitioner at one end to dangerous life threatening arrhythmias/ congestive cardiac

failure at other end. Its abnormal presentations like involvement of pulmonary valve should also be kept in mind during evaluation of RHD as in this case. All that needed is timely diagnosis, proper penicillin prophylaxis, anticoagulation, careful watch at warning signals and early surgery to alleviate suffering and prolong quality life in RHD patients.

**Acknowledgement:** All praises and thanks to Allah and peace be upon his messenger-Muhammed whom I obey, I am deeply indebted to my PROF. and HOD, Dr. R.K. Madhok sir for his gratitude and concern in guiding me in this work.

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Fig.1: Patient

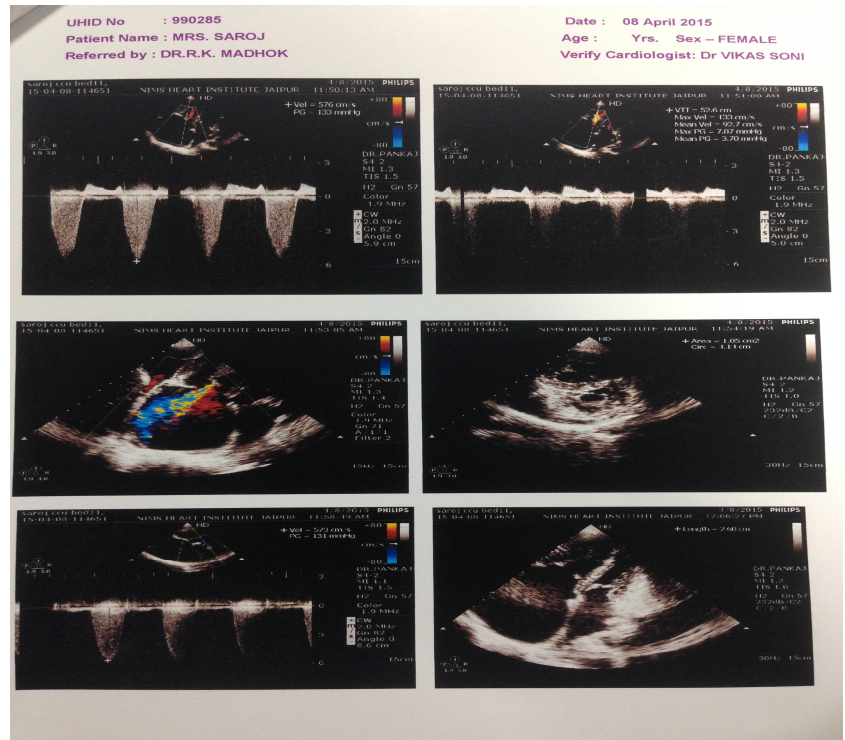


Fig. 2: 2D-ECHO image