

CASE REPORT

Ventricular Septal Defect with Dual Valve Rheumatic Heart Disease and Infective Endocarditis**Milind S. Tullu^{*}, Radha G. Ghildiyal and Shrinivas Tambe***Department of Pediatrics, T.N. Medical College and BYL Nair Hospital, Mumbai Central, Mumbai: 400 008 India***Introduction**

The incidence of congenital heart disease (CHD) is about 8 per 1000 live births; while the prevalence of rheumatic heart disease (RHD) in school-aged children is about 2-11 per 1000 [1]. The occurrence of RHD in a patient with CHD is considered to be extremely rare [1-2]. We report the rare occurrence of RHD and infective endocarditis in a child with CHD (ventricular septal defect).

Case History

A five-years-old girl was admitted to our hospital with history of prolonged fever for 4 weeks. She was diagnosed as a case of CHD (large perimembranous ventricular septal defect-VSD) at 6 months of age (color doppler examination done owing to murmur detected by physician elsewhere). At four years of age, she had developed breathlessness & increased precordial activity. Color Doppler of the heart (done elsewhere) revealed VSD (with tricuspid valve aneurysm) with RHD (moderately severe mitral regurgitation with mild aortic regurgitation and thickened valves). There was absence of arthritis or involuntary movements. However, she was not on prophylaxis with benathine penicillin then. All this was in her village before coming to our hospital.

On examination (at admission to our hospital) she had tachycardia and tachypnea with pansystolic murmur in the left parasternal area and mitral area. The color Doppler this time revealed large perimembranous VSD with RHD (moderately severe mitral regurgitation and mild aortic regurgitation with rheumatic thickening of both the valves), vegetations on tricuspid valve and tricuspid valve aneurysm tending to restrict the VSD. There was mild tricuspid regurgitation without pulmonary hypertension or Eisenmenger syndrome. She had cardiomegaly on chest radiograph and right bundle branch block on ECG. The hemoglobin level was 13 gm%, total leukocyte count was 17600/cumm, ESR was 40 mm at end of 1 hour with abnormal ASLO titre. Blood cultures done repeatedly were negative. The patient was treated with intravenous antibiotics for the infective endocarditis, aspirin for the recurrence of rheumatic carditis and anti- cardiac failure management. She improved clinically and was referred for surgical correction of the VSD and mitral regurgitation. Regular benathine penicillin prophylaxis was started to prevent further episodes of rheumatic fever (RF).

Discussion

Thakur et al [2] had reported that prevalence of RF/RHD was significantly higher in children with CHD (8.8%) as compared to those without CHD (0.3%). It was suggested that special attention needs to be paid for the diagnosis of RF/ RHD in patients with CHD and that patients with CHD should be considered to be a high risk group for development of RF/ RHD [2]. Bokhandi et al [1] have also reported association of VSD and RHD in 2 cases amongst 5 cases of CHD with RHD. The other three patients had aortic stenosis, coarctation of aorta and atrial septal defect with the RF/ RHD [1]. Though it is not possible to determine whether the presence of CHD with RHD is a mere coincidence or whether the presence of CHD actually predisposes to RHD; such reports underscore the need for a good follow-up of patients with CHD to look for development of RF/RHD [1]. It is interesting to note that a large study of 550 patients from India did not report any such association [3]. Also, all the reported cases of co-occurrence of CHD and RF/RHD had acyanotic heart disease as the CHD component [1].

We speculate that the alteration of intracardiac hemodynamics in the patients with CHD predispose them to the further insult by rheumatic affection. The presence of right sided endocarditis is an unusual occurrence [4]. If the rheumatic carditis occurs at an earlier age (< 5 years), the onslaught of the rheumatic syndrome complex can be expected to be more severe. This case is being reported for the extremely rare occurrence of RHD (mitral and aortic regurgitation) and infective endocarditis in a patient with CHD (VSD).

Acknowledgment

The authors thank Dr.S.N.Oak- Dean, T.N. Medical College & BYL Nair Hospital, Mumbai for granting permission to publish this manuscript.

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