

Echocardiographic Diagnosis of Acute Rheumatic Silent Carditis in Children and Comparison of the Features of Patients with Clinical and Silent Carditis

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Objective: Acute rheumatic fever and rheumatic heart disease continue to be an important public health problem in the developing countries. Doppler echocardiography is now widely used in most parts of the world for early detection and recurrences of clinical evident carditis (CC) and subclinical (SC) carditis. We aimed to determine the frequency of subclinical (silent) carditis and to compare clinical and echocardiographic features of the patients with silent and clinically evident carditis (CC). **Materials and Methods:** 156 consecutive patients, diagnosed with acute rheumatic fever in our pediatric cardiology department between 2003-2009 were included into study. All the patients underwent echocardiographic evaluation. Clinical and echocardiographic features of the patients were recorded. Follow up data was also obtained. The patients without clinical evidence but with echocardiographic findings of carditis were diagnosed as SC. The features of those patients were compared with CC group.

Results: Acute rheumatic fever was diagnosed in 156 patients and 103 (66%) of them had carditis. The ratio of SC was 28.2% among these 103 patients. Among patients with chorea, 17(89.5) had evidence of carditis. The chorea was more frequently observed major criteria in the patients with SC (31%). Whereas, arthritis was more common in CC group. Isolated mitral regurgitation was the most common lesion and concomitant involvement of mitral and aortic valves was the next common finding in both groups. Seventy-four of the patients with carditis were followed up more than one year and 20 of those had SC. Valvular regurgitation disappeared completely in 14.8% and improved in 37% of the patients with CC. The recovery and improvement rates in SC group were 15% and 30%, respectively. No significant difference was determined for persistent valvular damage between the groups. **Conclusion:** As the valvular involvement in both SC and CC group behave alike, they should be managed in the same manner. We suggest that Doppler echocardiography should be performed in all patients with suspected acute rheumatic fever for early detection of SC. Echocardiographic examination should be taken as a diagnostic criterion in order not to miss the diagnosis of SC, associated with significant morbidity.