

ECHOCARDIOGRAPHIC PATTERN OF HEART DISEASES IN SOUTH-WEST SHEWA REGION, ETHIOPIA

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Objectives

To describe the etiology of heart diseases in rural population of Ethiopia.

Methods

All patients evaluated in Wolisso hospital (south-west Shewa region, Ethiopia) with symptoms of heart disease, in the period from April 2006 to July 2008, performed echocardiography with M-mode and bi-dimensional scan. No doppler scan was available. In some cases ECG was performed too. Patients with hypertension with no cardiac symptoms were excluded. The hospital activities are provided for a region of 40 km diameter with 1.080.000 inhabitants.

Results

444 patients aged 1 month to 90 years were enrolled in the survey (222 males and 222 females). 56 patients showed atrial fibrillation or flutter, with equal sex distribution, but with a significantly lower age for females. Most of them showed left atrial dilation with severe mitral stenosis. In 231 patients with signs of congestive heart failure the main anomaly was left ventricular hypertrophy (LVH) in the population aged 0 to 5 years, possible expression of congenital aortic stenosis, or complicated Fallot disease. In young population, post rheumatic valvular diseases, especially mitral stenosis, was the most common anomaly found, while in

the older population the main diagnosis was idiopathic dilated cardiomyopathy, complicated hypertensive cardiomyopathy with LVH or dilation, or degenerative aortic valve disease. In a minority of cases massive tubercular pericardial effusion was found, in middle age population.

57 patients showed valvular heart disease involving almost always the mitral cusps, sometimes accompanied by aortic stenosis and tricuspidal regurgitation. Young females were significantly more involved in mitral stenosis usually with more severe damage (anatomic area < 1 cm²). In the oldest population cor pulmonale was an important finding too. Ischemic coronaric arteries diseases was found only in few cases.

Conclusions

Heart diseases account for significant morbidity and mortality in rural Ethiopian population.

Post-rheumatic valvular diseases, in which a easy and cheap prevention could play a major role, is still common especially in young females. Late hypertensive cardiac complications are responsible for the majority of congestive heart failure and cardiomyopathy in adult population.

These complications could be significantly reduced with a preventive strategy, while surgical or medical therapies for complicated cases appear to be much more expensive and difficult to perform.

Massive pericardial effusion with tamponade

