TILT-TABLE AND ERGOMETRY TESTS IN RELATION TO CARDIAC STATUS

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INTRODUCTION

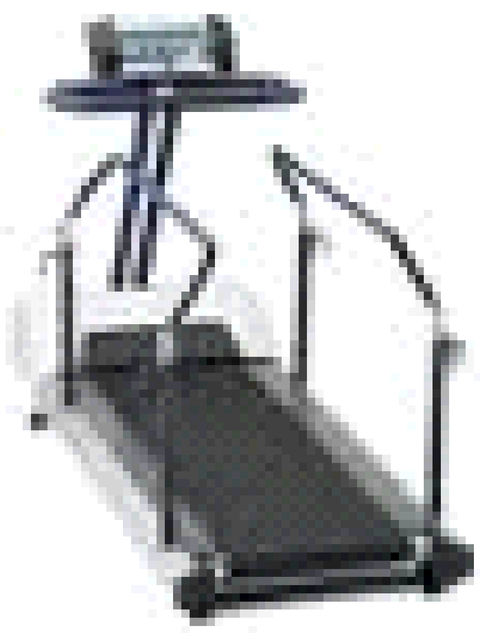
Ergometry and tilt-table test are non-invasive diagnostic tools for cardiac status evaluation of patients with arrhythmia, chest pain or syncopa, whose negative findings exclude cardiac causes.

THE AIM

The aim of this study was to evaluate these methods in paediatric patients.

SUBJECTS AND METHODS

The investigation was conducted at Clinical Centre of University of Sarajevo, Paediatric Clinic: Department of Cardiology, during April 2008 till April 2010. Step ergometry was performed in all pts with continous monitoring of: blood preassure, electrocardiogram, oxygen saturation and symptoms, according to Naughton protocol 2.0.



RESULTS

A total number of 119 patients were tested. Group of 75 patients age 7-18 years (mean age 13.4 years) was subjected to the ergometry: 41 boys (54.7%) and 34 girls (45.4%). The most common diagnoses of evaluated patients by ergometry were: arrhythmio cordis 27 (36%), stenocardiae 32 (42.7%), hypertensio arterialis 6 (8%) and others. A positive finding was diagnosed in 17 patients (22.6%) and negative in 58 patients. Tilt-table test was performed in 44 patients: age from 8 years till 18 years (mean age 13.9 years), 19 boys (43.2%) and 25 (56.8%) girls. The majority of patients observed by tilt-table test had syncopa in 41 (93.2%), vertigo 2 patients (4.5%) and others. Positive findings were detected in 27 patients (61.4%) and negative findings in 17 patients (38.6%).

Fig. 1 Representation by sex

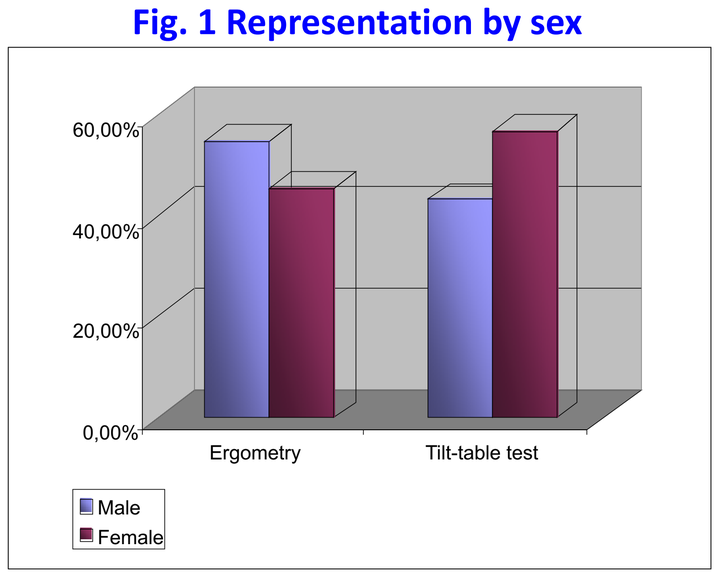


Fig. 2 The results of Tilt-table test

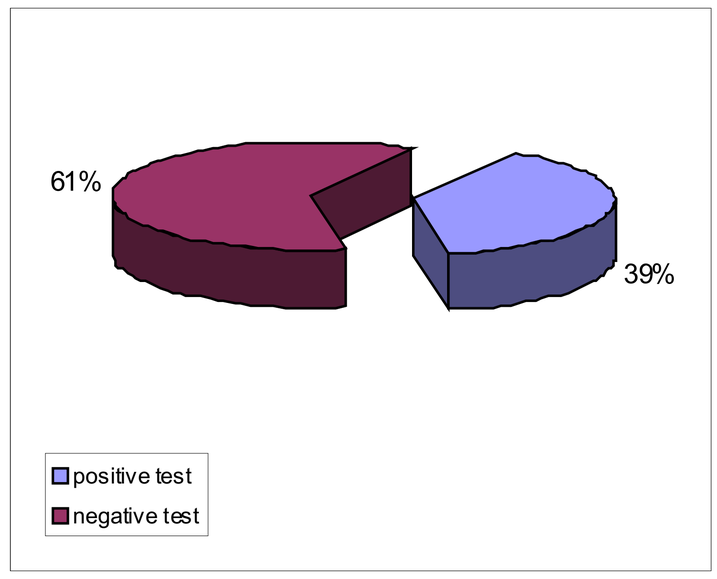
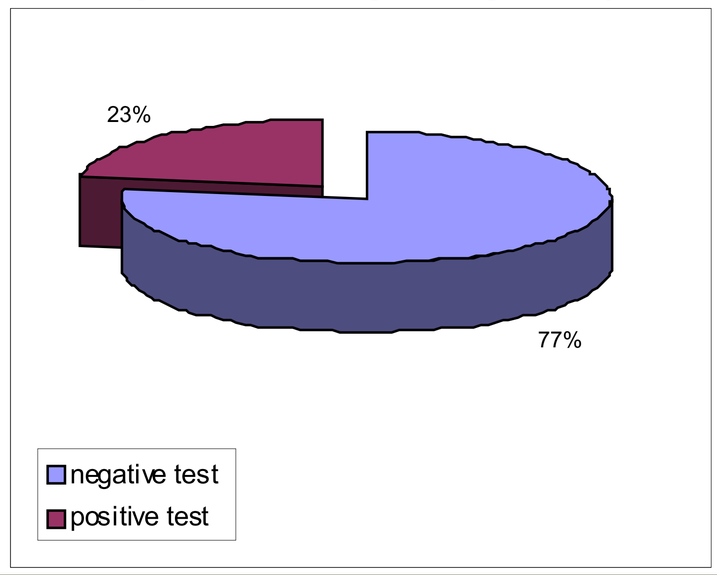


Fig. 3 Test findings of ergometry



CONCLUSIONS

These results were helpfull in establishing diagnosis of syncopa aetiology as the most common cause for performing this test. However, ergometry was negative even in 58 patients, excluding the cardiac cause of disease. These results are the first expirience of Sarajevo school in performing these tests. Ergometry and tilt-table test are valid non-invasive diagnostic tools in assessing cardiac status of paediatric patients.

LITERATURE

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