

Comparison of cardiac function and valvular damage in children with and without adenotonsillar hypertrophy.

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OBJECTIVE: Comparison of cardiac function in children with and without adenotonsillar hypertrophy. **METHODS:** We examined 28 pediatric patients with adenotonsillar hypertrophy mean aged 7.3+/-2.9 years comprised of 14 females and 14 males (group I). The control group were chosen from 35 healthy sex and age matched children mean aged 7.37+/-2.7 years (group II). Both groups were examined by an otorhinolaryngologist and adenotonsillar hypertrophy was diagnosed with nasal endoscopic method or lateral neck X-ray. All the patients in group I underwent adenotonsillectomy. Cardiologic and echocardiographic examinations were performed in both groups. Echocardiographic examination was done twice in group I (preoperative and postoperative first month) however in group II only once. Preoperative findings of group I compared with the findings of group II. Preoperative and postoperative echocardiographic findings were also compared within group I. The chi-square test and the independent paired-sample t-test were used for statistical analysis. **RESULTS:** The tricuspid end-diastolic time was the only significant difference in echocardiographic findings between the two groups (104.8+/-28.8 ms versus for 86.4+/-17.32 ms p<0.05). There was no statistical difference between preoperative and postoperative echocardiographic findings in group I. Brady-tachyarrhythmia was detected on electrocardiography - performed with 24h ambulatory electrocardiography - in one patient. To our surprise, in group I five patients had cardiac valve damage: mitral and/or aortic valve insufficiency. These findings were interpreted as silent carditis. **CONCLUSION:** There was no significant difference in right ventricular function between the children with and without adenotonsillar hypertrophy. Whereas, there was shortening of tricuspid end-diastolic time in group I. However, five patients having adenotonsillar hypertrophy developed a cardiac dysfunction which was not observed in the control group. Therefore, we assumed a correlation between adenotonsillar hypertrophy and possible silent carditis following frequent tonsillitis.

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