

عنوان مقاله:

Atrial and Ventricular Electrocardiographic Dromotropic Disturbances in Down Syndrome Patients with Structurally Normal Heart: A Cross-Sectional Study

محل انتشار:

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خلاصه مقاله:

Background: We designed a cross-sectional study to determine electrocardiographic disorders in Down syndrome patients with congenitally normal hearts in a bid to predict fatal cardiac arrhythmia in the future. **Materials and Methods:** We investigated 60 children with DS without congenital abnormal hearts. Sixty healthy juveniles were also included in the study as a control group. Physical examination, electrocardiography, and echocardiography were performed in all subjects. Corrected QT interval (QTc) was measured according to Bazett's formula. **Results:** Patients with DS consisted of 32 males (53.33%), and 28 females (46.66%), aged 6–13 (9.21 ± 6.24) years old. Healthy subjects comprised 31 males (51.66%), and 29 females (48.33%) with a mean age of 9.15 ± 5.01 . The two groups were significantly different in terms of heart rate ($P=0.006$), maximum P-wave duration ($P=0.001$), and P-wave dispersion (PWd, $P=0.0001$). There was no statistically significant difference regarding minimum P-wave duration ($P=0.176$). The patients with DS had a greater maximum QTc interval, QT dispersion, and corrected QT interval dispersion (QTc-d) than the healthy control subjects ($P=0.001$). However, there was no difference in maximum QT interval and minimum QTc interval between the two groups ($P=0.67$ and $P=0.553$, respectively). A positive correlation was found between age, heart rate, and all electrocardiographic variables. **Conclusion:** All DS patients, even in the absence of concomitant congenital heart disease should be followed up carefully by electrocardiography, looking for increased PWd and QTc-d to detect predisposed cases to arrhythmia.

کلمات کلیدی:

Cardiovascular Abnormalities, Children, Down syndrome, Congenital heart defects

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