

## **SUMMARY**

Electrocardiography is an important diagnostic tool in the evaluation of the cardiovascular system diseases. The ECG values in childhood significantly varies with age and gender. For this reason, many studies have been performed to establish the normal values for the childhood period. The most frequently used normative ECG measurements rely on the study by Davignon et al. Published in 1980. With the changes in the electrocardiography machines, there is a need for the detection of normal values for all the societies.

This study was carried out in Aydın among 0-16 year-old children during March-September 2008 to determine the normal values in healthy children. ECG records were collected randomly from 1305 patients in well child outpatient clinics, primary care units, nursery schools and primary schools. Totally 142 electrocardiograms were excluded (insufficient or noisy records (n=120), ectopic atrial rhythm (n=7), premature ventricular contraction (n=5), atrial premature contraction (n=2), congenital heart disease (n=2)). For further evaluation, 13 children with suspicious ECG's were recalled to the pediatric cardiology unit. Nine of them submitted to our outpatient clinics and two of them were excluded from the study (aortic valvular stenosis (n=1), Wolff-Parkinson-White syndrome (n=1)) besides the four missing patients. The remaining 1163 ECGs were included in the study. Of the children, 562 were female (47.4%) and 601 were male (52.6%).

Our results were compared to other studies from different countries between different races and to similar studies from Turkey. It was concluded that the observed differences in various ECG parameters could be related to biological variability and some technical details such as precordial electrode placement and visual checking of the records besides race.

*Key words: Electrocardiography, childhood*