

Comparing the groups, the GG genotype is significantly more frequent in hypertensive patients (47.80%) than in those without the condition (10.40%). Similarly, the GT variant shows a higher prevalence in the hypertensive group at 27.50% versus 9.20% in the normotensive group. The TT genotype also appears more often in those with hypertension (4.40%) compared to the 0.50% found in individuals without AH. This comparison highlights that all three genotypes related to the eNOS rs1799983 polymorphism are more prevalent in the hypertensive population.

Conclusions. The study indicates that the GG genotype and the G allele of the eNOS rs1799983 polymorphism carry the highest risk for arterial hypertension. The nearly five-fold higher frequency of the GG variant in hypertensive patients compared to normotensive controls identifies it as a critical genetic marker for disease susceptibility.

LITERATURE

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ECG VARIATIONS FOR NON-EPILEPTIC PAROXYSMAL CONDITIONS IN PEDIATRICS

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Relevance. Paroxysmal cardiac conditions have become an emerging health issue among the pediatric population worldwide. The spectrum of non-epileptic paroxysmal disorders includes various forms of tachyarrhythmias, bradyarrhythmias, conduction abnormalities, and autonomic disturbances that may present with symptoms mimicking epileptic events [1]. Electrocardiography remains the primary tool for identifying rhythm disturbances, conduction abnormalities, and repolarization disorders [2].

Target. To analyze electrocardiographic changes for non-epileptic paroxysmal conditions, taking into account the children's gender and age.

Research methods. Retrospective cohort study of 73 children aged 1-17 with non-epileptic paroxysmal conditions undergoing treatment in Grodno Children's Hospital.

Inclusions: age ≤ 17 years showed paroxysmal suspected cardiac origin & available clinical records.

Exclusions: confirmed epileptics with structural heart disease, acute infections with secondary cardiac involvement & incomplete records.

Research included comparative analysis of literature and statistics processed with traditional variational statistics on personal computer using StatSoft Statistika 10.0 program.

Results and their discussion. Electrocardiographic evaluation was performed in 64.4% of the total cohort. Sinus rhythm was documented in all examined children, confirming the absence of sustained arrhythmias at the time of recording. 91.5% of all exhibited normal voltage patterns. Normal axis had 23 children (48.9%). Left and right axis deviation was noted in 6 case (12.8%). The alpha angle was positive in 95.7% of all children. Tachycardia was identified in 19.1% of those. The distribution according to sex showed a slight male predominance. Age group analysis revealed that tachycardia occurred across all developmental stages, with the highest frequency observed among infants (33.3% of tachycardia patients), followed by newborns (22.2%). Bradycardia was documented in 10.6% of all children. A marked male predominance was observed. Age distribution showed that bradycardia was most prevalent in preschool-aged children (40%) and school-aged children (40%). PQ interval analysis demonstrated normal duration in 37 patients (78.7%) and 21.3% have shortened PQ. Conduction abnormalities included right bundle branch block in 8.5%. Insufficient R-wave progression, suggesting possible anterior forces abnormality, was documented in 4.3% of all cases.

Conclusions. Non-epileptic paroxysmal conditions in children demonstrate diverse electrocardiographic that vary according to age and sex. Tachycardia is the predominant rhythm disturbance, affecting infants most commonly, while bradycardia occurs more frequently in preschool and school-aged children with marked male predominance. Shortened PQ intervals are present in approximately one-fifth of patients, warranting evaluation for ventricular pre-excitation syndromes.

LITERATURE

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