suggests that these variants, particularly the GG genotype, are linked to increased risk of arterial hypertension.

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## A CROSS-SECTIONAL STUDY ON RELATIONSHIP BETWEEN POLYMORPHISM OF ENOS RS1799983 GENE AND ARTERIAL HYPERTENSION

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**Relevance.** Arterial hypertension (AH) is a global health burden linked to stroke and myocardial infarction. Molecular methods which identify hereditary roots, specifically the eNOS rs1799983 polymorphism show association to AH [1]. Many factors determine this condition, yet genetic factors play a key role. Studies around the world shows that genetic factors may influence AH such as the TT genotype of NOS3 (rs1799983) and AA genotype of IGFBP3 (rs11977526) are significant genetic risk factors for AH in Brazilian women of African descent [2]. Also the T allele, 1particularly in the TT genotype, acts as a significant risk factor, with a notably stronger association observed in Asian populations [3].

**Target.** To study the relationship between eNOS rs1799983 polymorphism and the presence of AH.

**Research methods.** In a study of 182 patients at Grodno University Clinic, 145 (79%) were hypertensive (SBP≥140; DBP>90), and 37 (20%) were normotensive. Blood pressure was measured twice. The eNOS rs1799983 polymorphism (GG, GT, TT) was analyzed using PCR-RFLP. All patients signed the consent for participation.

**Results and their discussion.** In this cross-sectional study on the eNOS rs1799983 gene polymorphism, the hypertensive group displays a genotype distribution of GG at 47.80%, GT at 27.50%, and TT at 4.40%. Within the group of individuals without AH, the recorded frequencies for these specific genotypes were GG at 10.40%, GT at 9.20%, and TT at 0.50%. These individual data points characterize the genetic profile for both study groups regarding the presence or absence of AH.

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.

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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.