

Investigation of MTHFR gene polymorphisms (C677T and A1298C) in patients with cleft lips and palate in Vietnam

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Cleft lips and palate (CLP) is rated as one of the most common birth defect - about 1 in 600 infants suffered, ranging from very mild to severe cases. The rate of this defect is highest among Asian population, followed by whites, and lowest among blacks. Our study is carried out on 25 children with CLP in Vietnam, among these, there are 13 boys (52%) and 12 girls (48%). The minimum age of the children is 5 months, the maximum was 108 months and the median age was 17 months. Determination of MTHFR polymorphisms, including C677T and A1298C using Real-time PCR with MTHFR-SNP, Lytech, Russia kit. The number of infants with the phenotype of unilateral cleft and isolated cleft lip were 60% and 40%, respectively. Analysis of polymorphisms illustrated that the proportion of mutant allele of 677T was 20% and 18% was recorded for 1298C. No case has been recorded with homozygous genotype for both polymorphisms. The rate of genotype combinations CT-AA and CC-AC accounted for 36%; the percentage of heterozygous genotypes with two polymorphisms accounted for the lowest figure. The proportion of polymorphisms of genotypes contributing to cleft lip only (CLO), unilateral and complete clefts was the highest (50.0%; 62.5% and 62.5% respectively); the opposite tendency was recorded for cleft palate only (CPO) with 18.7%.

Biography

Giap Nguyen Van is a doctor of Odonto-Stomatology who graduated from Hanoi Medical University in 2010. Dr. Giap has a passion and concern about children with cleft lips and palate in Vietnam. He has continuously researched about this disease since 2010 with new surgical methods, comprehensive treatment for children from birth to adulthood, especially research on the genetic code of children with this defect.

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