**Materials and methods:** The CC, CT and TT genotypes frequency of C677T polymorphism of MTHFR gene were 77.22 and 1% in preeclamptic women and 73, 19.5 and 7.5% in controls and significantly were not different (P = 0.06). But the frequency of TT genotype was significantly higher in controls. OR = 8.5 (95% CI 1.1–71, P = .018). There was no significant difference detected in T allele distribution between pre-eclamptic women(12%) and controls(17%) too.

**Conclusion:** Our results showed that there is not any correlation between the C677T polymorphism and preeclampsia, but the TT genotype of C677T polymorphism seems to be a protective factor for preeclampsia.

**Keywords:** Preeclampsia, Methylene tetrahydrofolate reductase, C677T, Polymorphism

**doi:** [10.1016/j.clinbiochem.2011.08.735](https://doi.org/10.1016/j.clinbiochem.2011.08.735)

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**Poster – [A-10-748-1]**

**Co-inheritance of cocaanti 3.7 triplication with β-thalassemia trait in an Iranian family**

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**Introduction:** The pathophysiology and clinical severity of β-thalassemias are associated with the degree of α/nonα-chain imbalance. A triplicated α-globin gene locus can exacerbate the effects of α-chain excess caused by a defective β-globin gene, although this coinheritance in different individuals results in variable phenotypes. In the present study we report the molecular analysis of an Iranian subject with a thalassemia intermedia phenotype, heterozygous for β-thalassemia.

**Methods:** DNA extraction from peripheral blood leukocytes was performed by salting out method. Mutation analysis of the β-globin gene was detected by ARMS-PCR and multiplex-PCR was used to detect alpha triplication (ααα homozygotes with ααα triplication with anti 3.7).

**Results:** The mother of index case was a carrier of β-thalassemia with HbS/I mutation in heterozygous form and her husband was hematologically normal with no mutation in β-globin gene. The propositus, a 2.5 years old child presented a transfusion dependent thalassemia intermedia phenotype. Multiplex PCR detected the presence of extra α-globin gene in the patient and her mother but her father was normal.

**Conclusion:** The clinical and hematological pictures of β-thalassemia heterozygotes with a triplicated α-globin gene arrangement is variable, ranging from an asymptomatic presentation to a mild to moderate thalassemia intermedia phenotype. This finding has important implications for genetic counseling and prenatal diagnosis programs. This family may be at risk for another child with severe thalassemia intermedia. The genetic and phenotypic characteristics of the patients described here indicate the need to consider the possibility of a triplicated α-gene allele in patients with heterozygosis for β-thalassemia who show an unexpected severe phenotype.

**Keywords:** Alpha triplication, Thalassemia intermedia, β-thalassemia trait

**doi:** [10.1016/j.clinbiochem.2011.08.737](https://doi.org/10.1016/j.clinbiochem.2011.08.737)