Brief Report

Two Rare Hemoglobin Variants in the Turkish Population (Hb G-Coushatta (B 22(B4) GLU-ALA and Hb J Iran (B 77 (EF1) HIS-ASP)

Şükrü YENİCE*, Sabri KEMAHLI**, Onur BİLENOĞLU***,
Özgür GÜL***, Ece AKAR****, A. Nazlı BAŞAK***, Nejat AKAR**,****

* Nazilli State Hospital, Nazilli, TURKEY
** Department of Pediatric Hematology, Ankara University, Ankara, TURKEY
*** Department of Molecular Biology and Genetics, Boğaziçi University, İstanbul, TURKEY
**** Department of Pediatric Molecular Genetics, Ankara University, Ankara, TURKEY

During screening surveys for beta thalassemia and abnormal hemoglobins in Nazilli and Mu¤la, cities located in the Aegean Region of Turkey, two hemoglobin variants were detected in two individuals, both without clinical signs.

The first variant from Nazilli was found to have an electrophoretic mobility similar to that of Hb S/Hb D in cellulose acetate electrophoresis with no sickling property. Electrophoretic analysis revealed that this variant constituted 43.3% of the total Hb; Hb A_2 (1.8%) and Hb F (< 1%) values were within normal levels in the 28-years old female patient. Molecular techniques described previously for the common mutations did not reveal the variant[1]. Automated fluorescent DNA sequencing, performed according to the manufacturer's instructions[2], showed the heterozygous presence of a C instead of an A at Cd 22 (GAA-GCA); the variant hemoglobin was identified as Hb G-Coushatta (B 22(B4) GLU-ALA).

The second variant from Mu¤la was a fast moving hemoglobin that constituted 48% of the total hemoglobin of a 14-years old male on cellulose acetate electrophoresis. Sequencing of the beta globin gene revealed that this variant as Hb J Iran (B 77 (EF1) HIS-ASP)(Cd 77 (CAC-GAC).

Hb G-Coushatta was reported previously in male from Kastamonu and a female from Denizli respectively[3,4]. Hb J-Iran was also reported in two individuals from Ankara and Antalya[5,6]. First reported patient had a combination of Hb J Iran and thrombastenia[5]. The other had Hb J-Iran in

combination with another variant: Hb N-Baltimore (B 95 (FG2) Lys-Glu)[6].

Our cases are further observation of Hb-Coushatta and Hb J Iran, suggesting that these variants seem to be sporadic and not rare for the Turkish population.

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Address for Correspondence:

Şükrü YENİCE, MD

Nazilli State Hospital,
Nazilli, TURKEY