

Premarital screening in Muğla region of Turkey

Muğla bölgesi'nde evlilik öncesi tarama

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To the Editor,

We read with interest Dr. Sarper et al.'s [1] paper discussing the premarital screening of hemoglobinopathies in the İzmit region. They also reviewed the previously reported Turkish studies. An editorial on the same subject by Dr. Gürgey also appeared in the same issue [2]. Although they reviewed all the published studies, the data from the Muğla region was missing since it has not been reported previously.

Our group started hemoglobinopathy screening in the Muğla region in the early 1990's. The city lies in the Mediterranean area of Turkey. Our first screening revealed 8.7% heterozygosity of beta thalassemia, and Hb S, Hb O Arab and Hb D Los Angeles were also observed with frequencies of 0.41, 0.27 and 0.14%, respectively. These values indicated the establishment of a premarital screening program in this region of Turkey [3].

The first official premarital screening was started in January 1997. Besides the obligatory screening for the couples, primary school students were also screened. A total of 220,689 individuals had been screened by the end of 2008. This is almost 28% of the Muğla's

population. Of these, 90,530 individuals were screened premaritally. The frequencies of beta thalassemia and abnormal hemoglobins were found to be 3% and 0.6%, respectively, in this group.

During these screenings, 131 couples at risk were detected and families who were at risk for children with hemoglobinopathy were directed to prenatal diagnosis. Of these, 75 mothers were subjected to prenatal diagnosis and 21 were found to have beta thalassemia major; the pregnancy was terminated in all families.

Since the beginning of the official premarital screening in Muğla, there has been no new beta thalassemia major birth. However, over this period, there have been some new cases; these cases are from couples who married outside the Muğla region or who were married before the official start of the premarital screening.

Several additional hemoglobin variants, including Hb J Iran and Hb Hamadan, were also detected in several families, all of whom needed genetic counseling [4-6].

Sarper et al.'s review and our unpublished data reveal that a great success has been achieved towards the prevention of hemoglobinopathies in Turkey.

References

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Author Reply

I thank to Özdemir et al. for their attention to our manuscript. Their letter reveals that 3% of the population in Muğla is thalassemia carrier. It seems that premarital screening and prenatal diagnosis are quite successful in preventing births with thalassemia major in this city.

I guess that official premarital screening studies in Turkey are generally unpublished. My aim to prepare this manuscript was to contribute to the epidemiological studies in Turkey. I wish the present study will motivate colleagues to publish their data on hemoglobinopathy screening studies.

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