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Letter to the Editor

Distribution of thalassemia trait in Balikesir Province according to trait type and age group

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Dear Editor,

Previously, an article entitled "Distribution of Thalassemia Trait in Balikesir Province According to Trait Type and Age Group" by Uğur Erçin was published International Journal Of Medical Biochemistry [1]. First of all, I congratulate the researchers of this article who have conducted detailed and difficult research. This valuable research can be completed with some other theoretical and practical experiments by the same group or other researchers.

First, in more comprehensive investigations, indices such as the Mentzer index [2] and the England & Frazer formula [3] can be used. The Mentzer index is obtained by dividing the mean corpuscular volume (MCV) by the number of red blood cells (RBC) per milliliter, and the England & Frazer formula is obtained by MCV – RBC -5× Hemoglobin (Hb) - 3.4. These indicators are also obtained in the laboratory by a simple blood count. These indices can distinguish iron deficiency anemia from thalassemia trait to a favorable extent. With these indices, we can determine to what extent the results of examining globin chains are consistent with the results of these indices. We can also find out what percentage of the patients identified have indices similar to those of iron deficiency anemia.

Second, after identifying patients with beta-thalassemia trait, PCR techniques can be used to find the common genetic mutations that cause this disease. The benefit of this research is that in the case of marriages between persons with this disease in trait form, we can more easily find the specific mutations that caused this disease in the person volunteering for marriage and prevent the birth of an infant suffering from this disease.

In the first case mentioned above, there is no need for advanced equipment, and only by means of special formulas for each index do we reach the index number of the desired index in each patient. In the second case, there is a need for a thermocycler device and specific primers for each mutation, which, according to the progress of universities, are available in almost all universities of medical sciences.

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