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Beta Thalassemia Frequency in Bahrain: A Ten Year Study

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Background: Sickle-cell disease and Thalassanemia syndromes impose a significant economic burden on many countries. Their chronic nature makes them one of the leading causes of morbidity and mortality in those countries[1].

Objective: The aim of this study is to estimate the frequency of beta thalassemia among the students in Bahrain from 1999 to 2008.

Setting: Bahraini Secondary Schools, genetic department and laboratory at Salmaniya medical complex.

Design: Prospective study.

Method: The students in the 11th grade (2nd Secondary class) were screened. Data were collected during the annual student screening program. Informed consents were obtained from the parents.

The blood samples were collected for hemoglobin electrophoresis using HPLC instrument.

Result: Sixty thousand students were screened from 1999 to 2008. The mean prevalence of beta thalassemia trait and major were 2097 (3.5%) and 19 (0.032%) respectively.

Conclusion: The frequency of beta thalassemia in Bahrain was found to be low to moderate compared with other Gulf countries such as UAE, Qatar and Kuwait. Sickle cell disease (SCD) is more common than beta thalassemia in Bahrain. Preventive measures remain the best ways for lowering the incidence of these diseases.

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