CLINICAL AND LABORATORY PROFILE OF CHILDREN WITH THALASSEMIA AT A TERTIARY HOSPITAL

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BACKGROUND

Thalassemia is a common inherited disease which was previously lethal from childhood can now be treated as chronic conditions, in which the patient may have a long and productive life.

OBJECTIVES

To describe the clinical and laboratory profile of children with thalassemia disease in a government tertiary hospital Philippine Children's Medical Center (PCMC).

METHODS

This was a retrospective analysis of the clinical and laboratory profile of thalassemia in a pediatric age group seen in the institution from the year January 2015 to December 2019. Relevant information were abstracted from patient charts using a standard data collection form and were encoded and analyzed using Microsoft Excel spreadsheet.

RESULTS

Among 90 subjects were predominantly male(53.3%) within the age of 2months to 1year old(28.9%). The common type was Alpha thalassemia trait(36.75%) followed by beta thalassemia minor(25.5%). The common sign associated was pallor(80%). The mean hemoglobin was 91.0±17.8, Mentzer's index was less than 13(65.6%) and had high ferritin values(25.6%), Microscopic hypochromic anemia was seen in 33.3% of patients while 7.8% had target cells. Eight patients (8.9%) had Hemoglobinopathy in Newborn screening. Pallor was significantly associated with presence of microscopic hypochromic anemia (p-value=0.009). Splenomegaly was significantly associated with lower mean hemoglobin (p-value=0.036), higher prevalence of having >13 Mentzer's index (p-value=0.048), and higher ALT/AST values (p-value=0.007). Hepatomegaly was significantly associated with higher ferritin values (p-value=0.004), and higher ALT/AST values (p-value=0.014).

CONCLUSION

Thalassemia affects males and females equally. The common age group diagnosed was 2months-1year old with Alpha thalassemia trait been the most common type. Pallor, splenomegaly, hepatomegaly was associated with higher liver function test, higher serum ferritin level and low mean hemoglobin level. This study will benefit in making an early diagnosis of different types of thalassemia and counselling of the parents.