

How to Cite:

Mohammed, S. H., Ameen, A. H. M., & Hamudy, S. H. (2022). Assessment of effect of thalassemia disease on affected children in Ibn- Al_atheer teaching hospital. *International Journal of Health Sciences*, 6(S2), 13263–13269.
<https://doi.org/10.53730/ijhs.v6nS2.8522>

Assessment of effect of thalassemia disease on affected children in Ibn- Al_atheer teaching hospital

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Abstract---Background and Aim Thalassemia is now one of the most common genetic diseases with non-epidemic prevalence as the number of infected patients increases, complications of the disease increase and the number of deaths increases. Thalassemia is a growing disease among children, especially in early childhood. Materials and Methods: The binary scale (yes-no) is used only .Represented by previous literature on the subject of the study. Use the repetitive method as well as percentages to facilitate study and extract results more clearly and easily.Through a comprehensive study to determine the quality of life of children with thalassemia. The study sample was composed of (30) children with Thalassemia during a period of time(1/11) to (30 /11) 2019. The data collected and used in the identification of tools consisted of (22) paragraphs. Results : The problems of the emergence of symptoms and their development quickly on the infected children ranked first in patients infected (90%) as followed by the problems of marriage of relatives and the spread of genetic diseases among them and by (96.67%). Conclusion : The study found that there are significant differences between quality of life and variables of age, Sex, educational achievement of mother, general income of family and housing.

Keywords---assessment, effect, thalassemia disease.

Introduction

Thalassemia is a Greek word meaning the Mediterranean basin. Because of the spread of this disease more in this region, it is also called anemia of the Mediterranean basin. It is one of the most common genetic blood diseases. Thalassemia is a genetic disease that affects the production of protein chains in hemoglobin "hemoglobin" In this case, non-integrated chains are manufactured in red blood cells, so hemoglobin in the red blood cells is unable to function, namely, the transfer of oxygen to different body organs (Shalitin, 2005). This imbalance also leads to a decrease in the maturity of red blood cells, which leads to the breakdown and breakage of early cells after a short period of production in the bone marrow (where normally the red cells live 120 days), which leads to chronic anemia, which affects children in their age Early. Therefore, the patient needs periodic blood transfusions every 3-4 weeks depending on the age of the patient and the degree of hypoglycemia in the blood. The disease is spread as mentioned earlier in many regions of the world, but the increase in the incidence of beta-thalassemia in the following areas: Mediterranean countries such as Italy, Turkey, Greece and Malta. Middle East region including Iran, Iraq, Syria, Jordan, Palestine. North African countries include Egypt, Tunisia, Algeria, Morocco and some African countries. The Gulf region in general Southeast Asia and the Indian Subcontinent. It is one of the genetic diseases that pass through genes from parents to children, and increase the incidence of the result of the mating of two people carrying the same genetic status, whether relatives or non-relatives, there are many genetic diseases in Iraq, of these diseases is Thalassemia. Thalassemia is a chronic and intractable disease in medical treatment. In most cases, it requires extensive medical care and rehabilitation, and thus represents a major health problem. Thalassemia has very significant side effects on the psychological, social and economic level of the family, society and the state in addition to the symptoms and chronic complications of the patient, which may lead to the life of the patient. (politis, 1998). Iraq is one of the countries in the world where Thalassemia is widespread and has high roots and the roots of the disease in Iraq because of the habit of marriage of relatives. The total number of people suffering from thalassemia in Iraq exceeds 10,000 registered in thalassemia centers throughout Iraq. More than 1,000 new patients are registered annually in these centers. There are other numbers of untreated patients who are not officially registered in thalassemia centers due to the lack of diagnosis or ignorance among families. What is worrying is the increase in the proportion of people with Thalassemia in our Iraqi society, where the rate exceeds 6% of the members of society, which negatively affects the increase in the number of new thalassemia in the future (Thalassemia Society in Nineveh 2012). In Iraq, about 12,000 people with thalassemia were infected in 2010 (www.shafaaq.com). The infection in the province of Nineveh about 1200 cases of Thalassemia (www.almaaparr).

Methodology

Samples were collected in the city of Mosul (IbnAtheer Children's Educational Hospital). The study population consists of (30) samples selected from the city of Mosul. The method of intentional intentional samples were used and were exporters. The questionnaire was corrected for the purpose of collecting data from the study sample. This form consists of two parts: part one; The personal data of

the study sample includes general information such as age, gender, educational attainment of the mother, general household income, housing address, Part 2: The data for the research questions are shown and the binary scale (yes-no) is used only. Use the repetitive method as well as percentages to facilitate study and extract results more clearly and easily.

Results

Table(1): Characteristics related to general information for children infected with the disease

Variables	The information	Duplicates	Relative frequency	percentage
Age of the child	(1-5) years	13	0,43	43
	(6-10 years)	10	0,33	33
	(11-15) years	7	0,24	24
	Total	30	1	100
Sex of the Child	Male	15	0.5	50
	female	15	0,5	50
	Total	30	1	100
Mother's educational attainment	Primary	23	0,77	77
	Medium	6	0,2	20
	Middle school	1	0,03	3
	Total	30	1	100
Household income	Weak	13	0,43	43
	Average	12	0,4	40
	good	4	0,14	14
	very good	1	0,03	3
	Total	30	1	100
home adress	countryside	10	0,33	33,33
	Attended	20	0,66	66,67
	Total	30	1	100

In terms of age, the highest rate was (43 %) for the age group (1-5 years) and the lowest percentage (24 %) for the age group (11- 15 years). In terms of educational attainment of the mother, the highest percentage was for primary graduates (77 %) and the lowest percentage was for graduates (3 %). In terms of household income, the highest percentage was poor (43%) and the lowest percentage was very good (3%). In the address of housing took the highest urban rate (66,67%) and the lowest percentage was the countryside (33.33%).

Table 2: Characteristics of questionnaires related to the subject of research

No			YES	
Paragraphs	K	%	%	K
There are signs of pallor on the child's face	43,33	13	56,67	17
Blood transfusions were performed previously	50	15	50	15
There is yellowing in the color of the eyes	10	3	90	27
The patient's physical and mental growth	10	3	90	27

The child takes medicines and foods that help him to grow physically and mentally	36,67	11	63,33	19
Bone marrow transplantation was performed for the affected child	93,33	28	6,67	2
The child is infected with thalassemia of alpha	100	30	0	0
The child is infected with beta thalassemia	0	0	100	30
The patient feels better when blood is transferred to him	0	0	100	30
The child suffers from frequent infections in the body	66,67	20	33,33	10
There is a degree of closeness between the parents	13,33	4	86,67	26
Thalassemia was performed for pre-marital parents	96,67	29	3,33	1
The child suffers from enlarged liver and spleen	56,67	17	43,33	13
The child took doses of the viral hepatitis vaccine	10	3	90	27
The mother was anemic during pregnancy	10	3	90	27
The mother is obliged to give the child treatment at the specified times of the doctor's call	16,67	5	83,33	25
The child suffers from side effects when taking blood	33,33	10	66,67	20
The child was given a treatment to prevent iron deposition	10	3	90	27
The transfusion blood of the thalassemia patient is well examined	0	0	100	30
Tests are carried out for the whole child before blood transfusions, especially hemoglobin screening	0	0	100	30
People have hoped their patients will improve	100	30	0	0
The child and the parents are cooperating with the medical and nursing staff	0	0	100	30

The seventh question (operative with thalassemia of alpha type) has the highest rate in both. It was (100%) and the lowest percentage in Yes was (0%). The eighth question (the child with thalassemia of beta type) received the highest percentage of yes (100%) and the lowest percentage in both (0%). The ninth question, which says (the patient feels better when transferring blood), has the highest percentage of yes (100%) and the lowest percentage in both (0%). The 19th question, which says, "The blood transfusion is examined for the thalassemia patient well, has the highest percentage of yes (100%) and the lowest percentage in both (0%). The 20th question that was taken (the tests are conducted for the child before the blood transfusion, especially the hemoglobin test) has the highest percentage of yes (100%) and the lowest percentage (0%). As for the twenty-one question, the patient's hopes of improving their patient's condition were highest in both cases (100%) and lowest in yes (0%). The second question, which is operative (child and parents cooperating with medical and nursing staff), has the highest percentage of yes (100%) and lowest percentage (0%).

Discussion

Since Thalassemia is a genetic disease, it has been diagnosed since childhood. This is what we obtained during our study. The most affected children were among the age group (1-5 years). The proportion was 43%. The lowest cases were

children of the age group Age (11-15) years and the proportion was 24%, while children aged (6-10) years were infected with the disease 33 %.The rate of infection was equal between females and males and was 50%.According to our study, the percentage of mothers with the level of education is low and most mothers have a primary school certificate. The percentage was 77 %. The lowest percentage was for graduates of colleges and colleges. 0% was for mothers with intermediate degree or 20% for mothers who studied middle school. Were only 3%.According to the study we conducted, we found that the most affected children had a low income and 43%. The most affected children were from a family with a very good income. The percentage was 3%. The average household was 40% and the family income was good. 14 %.According to the study we conducted and according to the percentages that emerged showed us that the most infected children were urban dwellers and the ratio was 66.67%, while rural residents were 33.33%.Table concerns the questionnaires related to the subject matter of the research.There is a pale mark on the face of the child.The percentages were 56.67% Yes and 43.33%. Both, according to the ratios that appeared and according to the study we conducted, show that the largest percentage of children have signs of pallor on their face and 56.67%, carried blood transfusion of the child previously.The percentages were 50% yes and 50% respectively, according to the percentages that appeared and according to the study we conducted, we found that the percentages are equal among children in terms of blood transfusion previously and the ratio was 50%,There is yellowing in the color of the eyes and face.The percentages were 90% yes and 10% respectively, according to the percentages that appeared and according to the study we conducted, we found that the largest percentage of children have yellowing in the eyes and face and 90%.The child takes medicine and food to help him grow his body and mind.The percentages were 63.33%, and 36.67% respectively. According to the study, we found that the largest percentage of children take medicine and food to help them in their physical and mental development. The percentage was 63.33%.Transplantation of the bone marrow to the injured child.Both rates were 6.67% and 93.33% respectively, according to the percentages that appeared. According to our study, we found that most children do not have a bone marrow transplant and 93.33%.Finally the tests are carried out for the child in full before blood transfusion, especially the examination of hemoglobin.The percentages were 100% yes and 0% respectively, according to the percentages that appeared according to the study we conducted. We found that all the tests were carried out for the child before blood transfusion, and also the hemoglobin examination was 100%.

Conclusions

This study concluded that the most people with Thalassemia were aged between (1-5) years, the most children with atherosclerosis were the result of marriage of relatives between parents and it was found that most people did not perform Thalassemia examination before marriage.

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