Facts about hereditary blood diseases

The First Fact

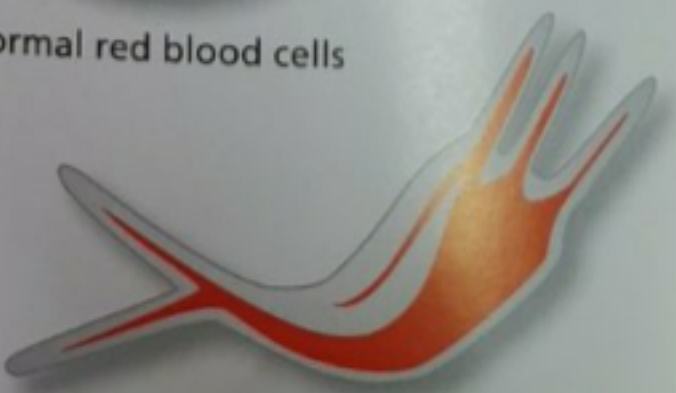
Hereditary blood diseases threatening Bahrain are (sickle cell anemia or disease, thalassaemia and, G6PD)

In 1985, a study had been done on the newly born babies, the following percentages were having:

(1) 2.1% are affected with sickle cell diseases.
(2) 11.2% are carriers of sickle cell disease.
(3) 20% are G6PD deficient.

This statistics shows that there is a large percentage of children affected from these sicknesses which cause health, social and economical problems for the community.

Normal red blood cells

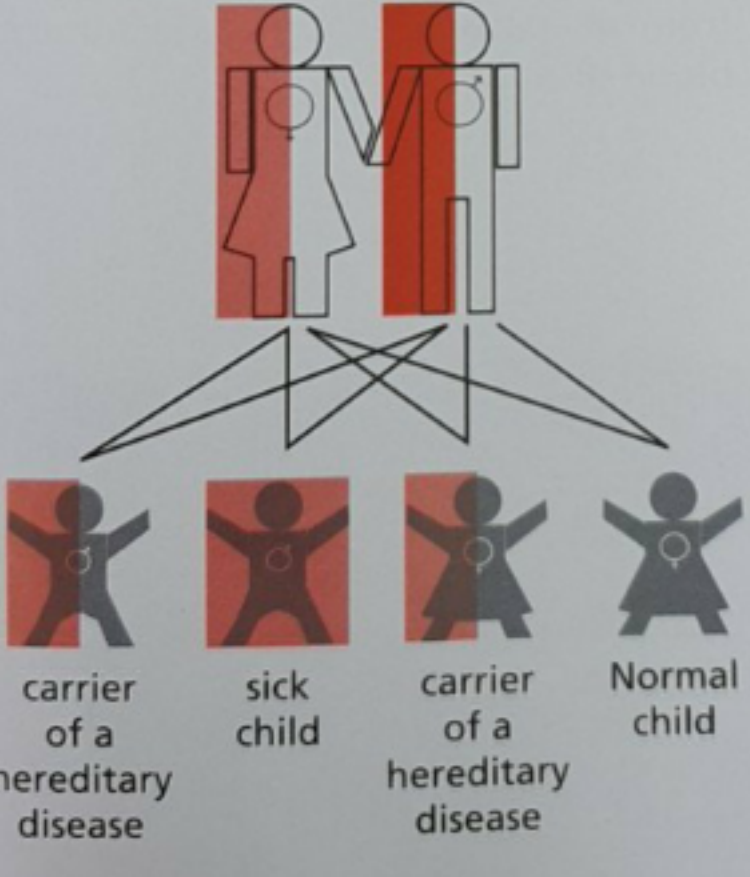


Sickled shaped red blood cells

The Second Fact

Way of Transmission of hereditary blood diseases.

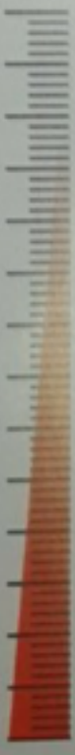
These diseases are caused by inheriting affected genes; Therefore, transfering them from one generation to another.



The Third Fact

Common symptoms for these diseases are as follows:

All these diseases cause break down of red blood cells which in turn cause reduction of the haemoglobin in the blood.
This reduction of haemoglobin causes weakness, tiredness, pallor, in addition, the patient could have Jaundice due to an increase in the yellow pigment of the blood. There might be also a reddish discoloration of the urine due to the presence of free haemoglobin.



The Fourth Fact

Most common hereditary blood diseases in Bahrain are:

(A) SICKLE CELL DISEASE:

In addition to the symptoms mentioned in the 3rd fact, these patients are prone to suffer from repeated attacks of pain in the Joints, back, and swelling in the feets and hands.
These symptoms occure upon exposure to certain conditions or factors such as:

1- Exposure to cold.

2- Fluid loss from the body due to diarrhea and vomiting.

3- Excessive physical activity.

4- Increase in body temperature.

5- High altitudes.

6- Pregnancy.

The Fifth Fact

(B) G6PD [Glucose-6-Phosphatase-Dehydrogenase Deficiency]

Patient will complain only when he:

1- Eats fava beans.

2- Takes some medications like aspirin, Sulpha and anti-malarial drugs.

3- Inhalation of Nephthalene (it is a medicine which is used to protect woolen clothes).

4- Increase in body temperature due to infection in the upper respiratory tract or elsewhere.

(C) Thalassemia

The 3rd fact symptoms will appear in the patient at the 1st year of life.

The Sixth Fact

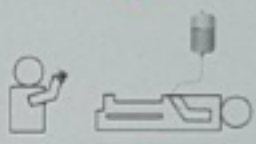
Treatment of the diseases

There is no definite treatment of these sickness or diseases, but they can be treated as follows:

(A) Sickle Cell disease

1- Pain killers.

2- Fluid rehydration, oral and intra venous.



3- Folic acid.

(B) G6PD

In general patients do not require any treatment because as long as they are not exposed to the factors causing the break down of red blood cells they will not complain of any symptoms. In case of breakdown of red blood cells the promoting factor should be stopped. Rarely these patients require blood transfusion.

(C) Thalassemia

1- Regular blood transfusions.

2- Using medicines that reduce iron overload.

3- Bone marrow transplantation.

The Seventh Fact

Prevention from these Diseases

(A) For prevention

1- Patients who are affected and carriers of Sickle cell disease and Thalassemia should not marry with each other.

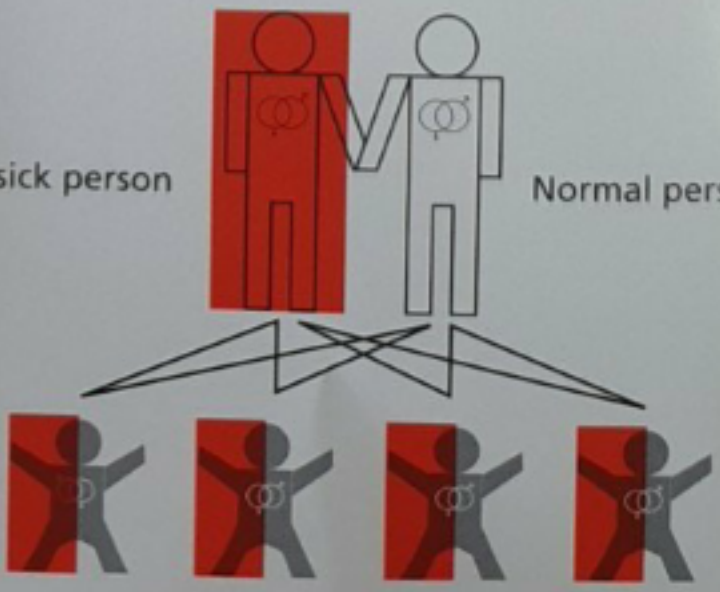
2- For patients affected with G6PD there is no restriction to marry even if both partners are affected.

3- It is advised for patients or the carriers of the hereditary diseases to marry a normal person.

(B) Prevention from the attacks of Sickle cell disease and G6PD

1- In sickle cell disease: Avoid factors that precipitate the attacks and drink lots of fluids.

2- In G6PD: Avoid factors that cause break down of the cells for the G6PD patients.



The Eighth Fact

Importance of awareness about inherited blood diseases

In the presence of proper treatment or proper medicine for these sicknesses awareness is the most important step for prevention:

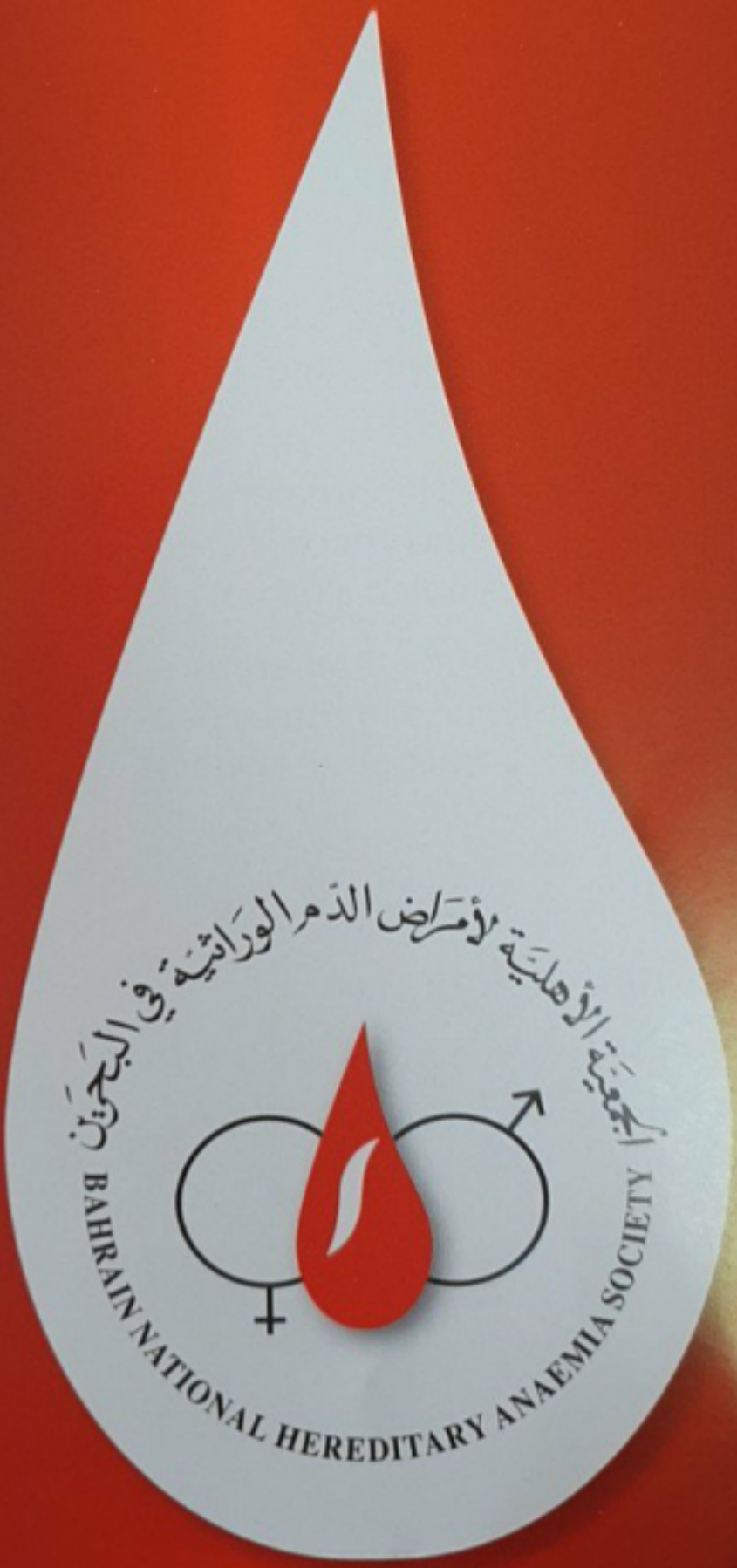
1- Encourage pre- marriage checkup.

2- Avoidance of precipitating factors for the attacks of pain in Sickle cell disease and G6PD patients to avoid factors causing the sickness.

3- Social contribution and cooperation from all parties to eradicate inherited blood diseases.

Dear citizen, Your role is to participate in the elimination of hereditary blood diseases through familiarizing your self about these diseases and convey the information to others.

With Compliments
Bahrain National
Hereditary Anaemia Society



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