1. Which of the following statement is correct about Thalassemia disease?

A. Thalassemia is caused by mutations in the DNA of cells that make haemoglobin.

B. The type of thalassemia depends upon the number of mutations in genes.

C. In mild thalassemia you may not need treatment.

D. D. All the above

Ans. D

Explanation: Thalassemia is an inherited blood disorder with less haemoglobin and fewer red blood cells in the body as compared to normal person. Haemoglobin is present in red blood cells carries oxygen to all parts of the body. The low haemoglobin and fewer red blood cells of thalassemia may cause anaemia and may lead to fatigue.

2. Which of the following is not the symptom of Thalassemia disease?

A. Slow growth and Weakness

B. Abdominal cramps

C. Dark Urine

D. Facial bone deformities

Ans. B

Explanation: Symptoms of Thalassemia are: fatigue, weakness, pale or yellowish skin, facial bone deformities, slow growth, abdominal swelling, dark urine etc.

3. Which type of thalassemia disease is Cooley anaemia?

A. Alpha- thalassemia

B. Beta- thalassemia

C. Alloimmunization

D. None of the above

Ans. B

Explanation: Beta thalassemia is a major disease which causes serious illness and is also known as Cooley's Anaemia.

4. Which blood tests detect if a person is a carrier of thalassemia?

A. complete blood count (CBC)

B. A reticulocyte count

C. Prenatal testing

D. All the above

Ans. D

Explanation: Blood tests that detect whether a person is a carrier of thalassemia disease are: a complete blood count (CBC), a reticulocyte count, iron, genetic testing and prenatal testing.

5. Which of the following statement is correct about alpha-thalassemia?

A. In alpha thalassemia, the haemoglobin does not produce enough alpha protein.

B. The severity of thalassemia depends on how many genes are mutated.

C. Alpha thalassemia is common in southern China, Southeast Asia, India etc.

D. All the above

Ans. D

Explanation: In alpha thalassemia, the haemoglobin does not produce enough alpha protein. To make alpha-globin protein chains, four genes are required, two on each chromosome that is 16. We get two from each parent. If one or more of these genes is missing, alpha thalassemia will result. The severity of alpha thalassemia depends upon the faulty or mutated genes. It is common in Southern China, Southeast Asia, India, the Middle East, and Africa.

6. Which of the following statements are correct about beta-thalassemia?

A. Severity depends upon the mutation of genes.

B. Two globin genes are required to make beta-globin chains, one from each parent.

C. Beta thalassemia is common in North Africa, West Asia, and the Maldive Islands.

E. All the above

Ans. D

Explanation: Two globin genes are required to make beta-globin chains, one from each parent. If one or both genes are faulty, beta thalassemia will occur. Also, severity depends on how many genes are mutated. It is more common among people of Mediterranean ancestry. Prevalence is higher in North Africa, West Asia, and the Maldive Islands.

7. What are the factors that increase the risk of Thalassemia disease?

A. Family history of thalassemia

B. Certain ancestry

C. Only A

D. Both A and B

Ans. D

Explanation: Factors that increase the risk of thalassemia are: Family history of thalassemia i.e. thalassemia is passed from parents to children through mutated haemoglobin genes. If anyone has thalassemia in the family history then the risk of the condition increases and certain ancestry is also responsible i.e. thalassemia occurs most often in African-Americans and in people of Mediterranean and Southeast Asian ancestry.

8. What are the complications that occur in severe thalassemia disease?

A. Bone deformities

B. Enlarged spleen

C. Heart problems

D. All of the above

Ans. D

Explanation: Following complications can occur in the severe thalassemia: bone deformities, enlarged spleen, slowed growth rates and heart problems.

9. What are the possible complications of thalassemia?

A. Iron overload

B. Infection

C. Only B

D. Both A and B

Ans. D

Explanation: People with thalassemia can get too much iron in their bodies, either from the disease or from frequent blood transfusions which can damage heart, liver and endocrine system. Also, people suffering from thalassemia disease may have an increased risk of infection.

10. What all treatments can be given to thalassemia patients?

A. Iron chelation

B. Bone marrow, or stem cell, transplant

C. Blood transfusions

D. All of the above

Ans. D

Explanation: Treatment depends on the type and severity of thalassemia which are blood transfusions, Iron chelation i.e. removing excess iron from the bloodstream, bone marrow, or stem cell, transplant, surgery and gene therapy.