Anemia, Hemolytic

Anemia means not having enough red blood cells in your blood to carry oxygen throughout your body. Hemolytic anemia is caused by red blood cells being destroyed faster than they are produced. In the intrinsic type, the destruction is due to a defect (problem) in the red blood cells themselves. In the extrinsic type, healthy red blood cells are produced, but are destroyed by medications, infection or medicines for the immune system. They are then stored in the spleen. Hemolytic anemia can affect all ages.

CAUSES

Bone marrow cannot produce red blood cells fast enough to make up for those being destroyed. This is known as hemolysis. There are many causes of hemolysis.

- It may be inherited (like sickle cell anemia).
- It may happen by taking a medication that causes the breakdown of red blood cells.
- It may be due to infection in the blood stream such as:
  - Hepatitis
  - Cytomegalovirus
  - Malaria
  - Certain virus infections
  - Epstein-Barr virus
  - Typhoid fever
  - Streptococcus
  - Escherichia coli (E. coli)
- The cause may be unknown.
- Some infections which cause this are:
  - Hepatitis
  - Typhoid fever
  - Malaria
  - Cytomegalovirus
  - Streptococcus
  - Certain virus infections
  - Epstein-Barr virus
  - Escherichia coli (E. coli)

SYMPTOMS

- Pale skin, eyes, and fingernails
- Irregular or fast heartbeat.
- Headaches
- Fatigue and weakness.
- Dizziness or fainting.
- Shortness of breath.
- Jaundice (yellow skin and eyes, dark urine).
- Cold hands and feet all the time.

DIAGNOSIS

Your caregiver will do a physical exam and ask questions about what is wrong. Laboratory tests, especially blood tests, may be done to help find a cause for the anemia.

SOME RISK FACTORS ARE:

- **Inherited disorders**. These include hereditary spherocytosis, glucose-6-phosphate dehydrogenase (G6PD) deficiency, sickle-cell anemia, or thalassemia.
- Leukemia or lymphoma.
- Use of certain medications, such as penicillin, anti-malaria drugs, sulfa, or acetaminophen.
- Various tumors.
- Family history of hemolytic anemia.
- Blood infection (*septicemia*).
- Exposure to toxic chemicals.
- Exposure to too much radiation.

TREATMENT AND PREVENTION

- Treatment depends on the reason for the cause. Treatment may include:
  - Getting new medications.
  - Blood transfusions.

- Gamma globulin injections.
- Steroids and short-term treatment.
- Stopping medications if that is the cause. Do not take any medications that have previously caused hemolytic anemia. Medications that are causing the anemia should be stopped.
- Surgery to remove the spleen

- Seek genetic counseling before having children if you have a family history of hemolytic anemia (inherited forms).
- Treatment of infections with antibiotics (especially blood infection).

HOME CARE INSTRUCTIONS

- Keep all your appointments for follow up care with your doctor.
- See a doctor if there is a family history of anemia.
- Take over the counter iron pills
- Eat foods that contain a large amount of iron:
  - Red meats
  - Beans
  - Dark green leafy vegetables (spinach)
  - Nuts and seeds
  - Dried fruit
  - Iron fortified cereals

PROGNOSIS

- If hemolytic anemia is acquired (not inherited), it can usually be cured. This is possible when the cause, such as a medication, is stopped.
- If it is due to another illness or problem, what happens depends on the course of the other illness or problem.
- If hemolytic anemia is inherited, it cannot be cured, but symptoms can be relieved or controlled.

COMPLICATIONS

It may cause existing heart or lung disease to worsen.

SEEK MEDICAL CARE IF:

- You find that you are getting tired easily.
- Your skin looks pale.
- You develop an irregular or fast heart beat.
- You get dizzy easily.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your skin and white of your eyes become yellow (*jaundiced*).
- You develop chest pains.
- You become short of breath.
- You faint.
- You develop an uncontrolled cough.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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