Thrombocytopenia

Thrombocytopenia is an uncommon, serious blood disease. Thrombocytopenia means there are not enough platelets in your blood. These are one of the cells necessary for clotting. Platelets are also called thrombocytes.

CAUSES AND RISK FACTORS

Thrombocytopenia is caused by:

- Decreased production of platelets.
- Increased destructions of platelets.
- Enlarged spleen (*hypersplenism*).

Decreased production of platelets in the bone marrow can be caused by:

- A plastic anemia in which your bone marrow quits making blood cells.
- Cancer in the bone marrow.
- Certain medications, including chemotherapy.
- Overwhelming infection in the bone marrow.

Increased breakdown of platelets occurs in the bloodstream, spleen, or liver. This category includes:

- Immune thrombocytopenic purpura (ITP).
- Drug-induced thrombocytopenia.
- Thrombotic thrombocytopenic purpura (TTP).
- Certain inherited disorders.
- Disseminated intravascular coagulation (DIC).

In *hypersplenism*, an enlarged spleen gathers up platelets from circulation so they are not available to do their job and help with clotting. The spleen can enlarge in cirrhosis and other conditions.

SYMPTOMS

All of the symptoms of thrombocytopenia are essentially a side effect of poor blood clotting. Some of these are:

- Abnormal bleeding.
- Nosebleeds.
- Fever.
- Easy fatigue.
- Shortness of breath on exertion.
- Changes in awareness.
- Confusion.
- Purpura -- purplish discolorations in the skin produced by small bleeding vessels near the surface of the skin.
- Bruising.
- Yellowish color to the skin (jaundice).
- Weakness.
- Pallor.
- Heart rate over 100 beats per minute.
- Headache.
- Speech changes.
- Rash which may be petechial (like pin point purplish red spots on the skin and mucous membranes caused by bleeding from capillaries).

DIAGNOSIS

Your caregiver will make this diagnosis based on exam and with the use of blood tests. Routine blood work will show decreased platelets in the blood.

- Sometimes a bone marrow study is done to look for the original cells (*megakaryocytes*), which make platelets.
- Mucus membrane biopsy, if done, may show platelet clots in small blood vessels.

TREATMENT

- Treatment depends on the cause of the condition.
- In some cases, a replacement (*transfusion*) of platelets may be required to stop or prevent bleeding.
- Sometimes the spleen must be surgically removed.

- Plasmapheresis may be used to remove proteins from the blood that cause platelet destruction.

PROGNOSIS

The outcome depends on the disorder causing the low platelet counts and on how low the platelet count falls. Any system in the body can be affected if there is too much bleeding. Some problems are:

- Excessive bleeding (*hemorrhage*).
- Vomiting blood or blood in the stools (*gastrointestinal bleeding*).
- Bleeding in the brain (*intracranial hemorrhage*).

HOME CARE INSTRUCTIONS

- Check the skin and linings inside your mouth for bruising or bleeding. Call your caregiver if you develop unexplained bleeding or bruising.
- Watch your sputum, urine and stool for blood. Report any signs of bleeding to your caregiver.
- **DO NOT** return to any activities that could cause bumps and bruises until given the OK by your caregiver.
- Take extra care not to cut yourself when using scissors, needles, knives, tools. Try not to burn yourself when ironing or cooking.
- Notify any healthcare providers, including dentists and eye doctors, of your condition.

SEEK IMMEDIATE MEDICAL CARE IF:

- You develop headaches or blurred vision.
- You develop active bleeding from anywhere in your body.
- You become extremely tired, weak, or dizzy.
- You become short of breath or develop pain.

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