



ISSN: 2277- 7695

TPI 2016; 5(12): 18-22

© 2016 TPI

www.thepharmajournal.com

Received: 05-10-2016

Accepted: 06-11-2016

Swati Burungale

SVPMS College Of Pharmacy

Malegaon Baramati,

Maharashtra, India

Natural remedies to increase platelet count

Swati Burungale

Abstract

Platelets are colourless blood cells that assist in blood clotting by forming plugs in blood vessel holes. Because each platelet lives only about ten days, normally the blood platelets are produced in the bone marrow. Decreasing of platelets occur due to trapping of platelets in the spleen or increasing destruction of platelets. A healthy person has between 150,000 – 400,000 platelets per micro litre of blood. However, chemotherapy, radiotherapy, dengue fever, chronic hepatitis, viral infection or imbalance in the immune system can cause a sub- normal platelet count. If body suffers from low blood platelets counts then it might be at risk, if it has a cut or a break on the skin. If body has a sufficient number of platelets then they are at a lower risk of haemorrhaging. This review discuss about the causes, symptoms, related diseases, factors, conditions, medications, types of thrombocytopenia and natural remedies to cure thrombocytopenia.

Keywords: Papaya juice, spinach and tomato juice, red guava, Indian goose berries jam

Introduction ^[1]

Platelets are colour less blood cells that assist in blood clotting by forming plugs in blood vessels holes. A healthy person has about 150,000 – 400,000 platelets per micro litre of blood. However, chemotherapy, radiotherapy, dengue fever, chronic hepatitis, viral infection or imbalances in the immune system can cause a sub – normal platelet count. If body suffer from low blood platelets count then it may be risk if it has a cut or break on the skin. If body has a sufficient number of platelets then they are at a low risk of haemorrhaging. For any reason your blood platelet count falls below normal, the condition is called thrombocytopenia. Normally, you have anywhere from 150,000 to 450,000 platelets per micro litter of circulating blood. Because each platelet lives only about 10 days, your body continually renews your platelet supply by producing new platelets in your bone marrow. Thrombocytopenia can be inherited or it may be caused by a number of medications or conditions. Whatever the cause, circulating platelets are reduced by one or more of the following processes: trapping of platelets in the spleen, decreased platelet production or increased destruction of platelets.

Trapped platelets ^[2]

The spleen is a small organ about the size of your fist located just below your rib cage on the left side of your abdomen. Normally, your spleen works to fight infection and filter unwanted material from your blood. An enlarged spleen — which can be caused by a number of disorders — may harbour too many platelets, causing a decrease in the number of platelets in circulation

Decreased platelets are produced in your bone marrow. If production is low, you may develop thrombocytopenia. Factors that can decrease platelet production include:

- Leukaemia
- Some types of anaemia
- Viral infections, such as hepatitis C or HIV
- Chemotherapy drugs
- Heavy alcohol consumption

Some conditions can cause your body to use up or destroy platelets more rapidly than they're produced. This leads to a shortage of platelets in your bloodstream. Examples of such conditions include.

- Pregnancy
- Thrombocytopenia caused by pregnancy is usually mild and improves soon after childbirth.

Correspondence

Swati Burungale

SVPMS College Of Pharmacy

Malegaon Baramati,

Maharashtra, India

- Immune thrombocytopenia- This type is caused by autoimmune diseases, such as lupus and rheumatoid arthritis. The body's immune system mistakenly attacks and destroys platelets. If the exact cause of this condition isn't known, it's called idiopathic thrombocytopenic purpura. This type more often affects children.
- Bacteria in the blood- Severe bacterial infections involving the blood (bacteraemia) may lead to destruction of platelets.
- Thrombotic thrombocytopenic purpura- This is a rare condition that occurs when small blood clots suddenly form throughout your body, using up large numbers of platelets.
- Haemolytic uremic syndrome- This rare disorder causes a sharp drop in platelets, destruction of red blood cells and impairment of kidney function. Sometimes it can occur in association with a bacterial Escherichia coli (E. coli) infection, such as may be acquired from eating raw or undercooked meat.
- Medications- Certain medications can reduce the number of platelets in your blood. Sometimes a drug confuses the immune system and causes it to destroy platelets. Examples include heparin, quinine, sulpha-containing antibiotics and anticonvulsants.

Thrombocytopenia (Low Platelet Count) Related Diseases & Conditions^[5]

Medical conditions are often related to other diseases and conditions. Our doctors have compiled a list of ailments related to the topic of Thrombocytopenia (Low Platelet Count). These conditions may be a cause or symptom of Thrombocytopenia (Low Platelet Count) or be a condition for which you may be at increased risk. Kidney failure can occur from an acute event or a chronic condition or a disease pre renal kidney failure is caused by blood loss. Blood clots can occur in the venous and arterial vascular system. Blood clots can form in the heart, legs, arteries, veins. Leukaemia is a type of cancer of the blood cells in which the growth and development of the blood cells are abnormal. Anaemia is the condition of having less than the normal number of red blood cells or less than the normal quantity of haemoglobin. Cirrhosis of the liver refers to a disease in which normal liver cells are replaced by scar tissue caused by alcohol and viral. is a collection of blood that is outside a blood vessel. There are different where hematoma's occurs. Enlarged spleen (splenomegaly) is generally caused by other diseases or conditions such as infections, cancer. Non-hodgkins lymphoma is a cancer of lymphatic system, a viral part of body immune system. Pernicious anaemia is a blood disorder in which body does not make enough blood cells due to lack of vitamin-b12 in the blood. Lupus (systemic lupus erythematosus or SLE) is a condition characterised by chronic inflammation of body tissue characterised by auto immune disease. Mumps is an acute viral illness caused by the mumps virus. Symptoms of mumps include fever, headache, muscle aches, tiredness. Hepatitis-c is an inflammation of liver due to the hepatitis-c virus which is usually spreaded by blood transfusion. Vasculitis is a general term for a group of uncommon disease which feature inflammation of the blood vessels. Hepatitis b virus is a unique coated DNA virus belongs to the HEPA DNA VIRIDAE family of viruses. E. coli there are many types of e.coli pathogenic e.coli can cause urinary tract and bladder infection. Disease FIFTH (erythema infectiosus) is caused by virus known as parvovirus B 19.

Symptoms include low grade fever, fatigue. Idiopathic thrombocytopenia purpura means that the cause of condition isn't known. Heart attack treatment involves danger or death of part of the heart muscle due to a blood clot. German measles (rubella) is a disease that caused by a virus. symptoms include rash and fever for 2 to 3 days. Meningococemia is a blood stream infection caused by neisseria gonorrhoea meningitis. Meningococemia symptoms includes fever and headache. Many factors can cause thrombocytopenia (a low platelet count). The condition can be inherited or acquired. "Inherited" means your parents pass the gene for the condition to you. "Acquired" means you aren't born with the condition, but you develop it. Sometimes the cause of thrombocytopenia isn't known.

In general, a low platelet count occurs because

- The body's bone marrow doesn't make enough platelets.
- The bone marrow makes enough platelets, but the body destroys them or uses them up
- The spleen holds on to too many platelets.
- A combination of the above factors also may cause a low platelet count.

The Bone Marrow Doesn't Make Enough Platelets^[2]

Bone marrow is the sponge-like tissue inside the bones. It contains stem cells that develop into red blood cells, white blood cells and platelets. When stem cells are damaged, they don't grow into healthy blood cells. Many conditions and factors can damage stem cells.

Cancer

Cancer, such as leukaemia (lu-KE-me-ah) or lymphoma (lim-FO-ma), can damage the bone marrow and destroy blood stem cells. Cancer treatments, such as radiation and chemotherapy, also destroy the stem cells.

Aplastic Anaemia

Aplastic anaemia is a rare, serious blood disorder in which the bone marrow stops making enough new blood cells. This lowers the number of platelets in your blood.

Toxic Chemicals

Exposure to toxic chemicals-such as pesticides, arsenic, and benzene-can slow the production of platelets.

Medicines

Some medicines, such as diuretics and chloramphenicol, can slow the production of platelets. Chloramphenicol (an antibiotic) rarely is used in the United States. Common over-the-counter medicines, such as aspirin or ibuprofen, also can affect platelets.

Alcohol

Alcohol also slows the production of platelets. A temporary drop in the platelet count is common among heavy drinkers, especially if they're eating foods that are low in iron, vitamin B12, or folate.

Viruses

Chickenpox, mumps, rubella, Epstein-Barr virus, or parvovirus can decrease your platelet count for a while. People who have AIDS often develop thrombocytopenia.

Genetic Conditions

Some genetic conditions can cause low numbers of platelets in the blood. Examples include Wiskott-Aldrich and May-Hegglin syndromes.

The Body Destroys Its Own Platelets^[2]

A low platelet count can occur even if the bone marrow makes enough platelets. The body may destroy its own platelets due to autoimmune diseases, certain medicines, infections, surgery, pregnancy and some conditions that cause too much blood clotting.

Autoimmune Diseases

Autoimmune diseases occur if the body's immune system mistakenly attacks healthy cells in the body. If an autoimmune disease destroys the body's platelets, thrombocytopenia can occur. One example of this type of autoimmune disease (ITP). ITP is a bleeding disorder in which the blood doesn't clot as it should. An autoimmune response is thought to cause most cases of ITP. Normally, your immune system helps your body fight off infections and diseases. But if you have ITP, your immune system attacks and destroys its own platelets. Why this happens isn't known. (ITP also may occur if the immune system attacks your bone marrow, which makes platelets.) Other autoimmune diseases that destroy platelets include lupus and rheumatoid arthritis.

Infection

A low platelet count can occur after blood poisoning from a widespread bacterial infection. A virus, such as mononucleosis or cytomegalovirus, also can cause a low platelet count.

Surgery and Pregnancy

Platelets can be destroyed when they pass through man-made heart valves, blood vessel grafts, or machines and tubing used. About 5 percent of pregnant women develop mild thrombocytopenia when they're close to delivery. The exact cause isn't known for sure.

Rare and Serious Conditions That Cause Blood Clots

Some rare and serious conditions can cause a low platelet count. Two examples are thrombotic thrombocytopenic purpura (TTP) and disseminated (DIC). TTP is a rare blood condition. It causes blood clots to form in the body's small blood vessels, including vessels in the brains, kidneys and heart. DIC is a rare complication of pregnancy, severe infections, or severe trauma. Tiny blood clots form suddenly throughout the body. In both conditions, the blood clots use up many of the blood's platelets.

The Spleen Holds On to Too Many Platelets^[5]

Usually, one-third of the body's platelets are held in the spleen. If the spleen is enlarged, it will hold on to too many platelets. This means that not enough platelets will circulate in the blood. An enlarged spleen often is due to cancer or severe liver disease, such as cirrhosis (sirRO-sis). Cirrhosis is a disease in which the liver is scarred. This prevents it from working well. An enlarged spleen also might be due to a bone marrow condition, such as myelofibrosis (MI-eh-lo-fi-BRO).

How Can Thrombocytopenia Be Prevented^[3]?

Whether you can prevent thrombocytopenia depends on its specific cause. Usually the condition can't be prevented. However, you can take steps to prevent health problems associated with thrombocytopenia. For example.

- Avoid heavy drinking. Alcohol slows the production of platelets.
- Try to avoid contact with toxic chemicals. Chemicals such as pesticides, arsenic and benzene can slow the production of platelets. Avoid medicines that you know have decreased your platelet count in the past.
- Be aware of medicines that may affect your platelets and raise your risk of bleeding. Two examples of such medicines are aspirin and ibuprofen. These medicines may thin your blood too much.
- Talk with your doctor about getting vaccinated for viruses that can affect your platelets. You may need vaccines for mumps, measles, rubella, and chickenpox. You may want to have your child vaccinated for these viruses as well. Talk with your child's doctor about these vaccines.

Exercise Recommendations^[4]

The Leukaemia/Bone Marrow Transplant Program of British Columbia provides specific exercise recommendations for different levels of low platelets. Limit all activity when the count is less than 15,000. When platelets are 15 to 20, you may do gentle exercising that does involve resistance. This could include exercising while sitting or standing, gentle stretching or taking an easy walk. A platelet count of 20 to 40 allows you to use some light resistance, such as weights or latex bands. You can walk faster and climb stairs. At platelet levels of 40 to 60, add exercises such as stationary cycling and golfing. Higher levels, that are still considered too low, allow for aerobic exercise such as biking and jogging, but require wearing proper gear and taking caution against injury.

Low Platelets Count Natural Remedies^[1]

To increase the platelets count in the blood naturally start using these natural cures

Eat Colourful Fruits and Vegetables^[1]

Berries, green leafy vegetables, oranges, tomatoes and kiwis can help increase your platelet levels. Foods rich in vitamins E & C will boost the immune system, so all types of citrus, fruits, strawberries, kiwis, cauliflower, mustard green, lettuce, turnip, tomatoes, wheat grass & raspberries contain phytonutrients that help neutralise free radicals & aid in fighting low platelets. Red fruits are key to improved platelets count. Tomatoes, plumps, watermelons, cherries and berries are loaded with vitamin, minerals and strong anti-oxidant properties which helps to raise platelets count. Vegetables such as broccoli, spinach, kale, Chinese vegetables like choy sum and kalia are loaded with antioxidants and rich in vitamins and minerals which are believed to reduced inflammation and increase platelets count.

Beetroot Juice and Carrot Juice^[1]

Beetroot juice is a potent antioxidant that helps fight against disease. Add 2 – 3 table spoons of beetroot juice in a glass of carrot juice and take it 2 – 3 times a day. It will boost platelets count in 3 – 4 days.



Spinach and Tomato Juice, Red Guava ^[1]

Boil 4 -5 leaves of fresh spinach in half litre of water, for 2-3 minutes. Once cold add half glass of tomato juice and take in 3 times a day. Red guava is becoming noted for its role in improving platelets and research is ongoing.



Eat Papaya and Drink Papaya Leaves Juice ^[1]

Foods like beetroot and papaya has natural properties that enhance the blood clotting process and is recommended that they be consumed on a regular basis. Papaya also has the ability to increase platelet production. The most common home remedy is to drink the bitter extract from a papaya leaf. Two leaves without the stalk can yield approximately 2 table spoons of the extract. Pound papaya leaves with pestle and mortar to extract the juice. Although the juice is very bitter and requires a lot of effort dowing them, it is worth it. The papaya leaf extract can also easy to obtain as to take capsule or drink the tea to get around the bitterness. The papaya leaf has a similar taste as green tea, obtain organic papaya leaf tea and papaya leaf extract.



Vitamins to Increase Platelet Count ^[1]

To increase platelet counts, consult the doctor to take a multi-vitamin containing a high dose of vitamin A, B, C, D & K also include the foods containing these vitamins in the diet. Take a lot of vitamin C supplement. Mainly vitamin C can obtain form fruits and vegetables as well. Because vitamin C is water soluble, it can be easily absorbed by the body and

will immediately help in restoring the body's platelet count. Sufficient intake of vitamin C and flavanoids from natural foods like lemon, broccoli, spinach, bell pepper and kiwi are also beneficial for low platelet counts. Doctor also advices to consume the white fibrous rind of orange as it contains high levels of flavanoids, which improves blood vessel.

Indian Goose Berries Jam and Aloe Vera ^[1]

Eating home made fresh goose berries jam or pickle can help increase blood platelet count. To make Indian goose berry jam, wash approximately 1 kg of Indian goose berries and prick them with a form. Now boil them for 2 – 3 litters of water. Let it soak in water for next 24 hours. Add 1 kg of brown sugar to the mixture and let it soak for another day. Next day add some citric acid, approximately 3 gm and boil it on medium heat for 10 minutes. Store the jam in jar for another 48 hours. Now Indian goose berry jam is ready to use. Eat 3 – 4 goose berries, empty stomach, every morning to increase platelet count. Foods that act as blood purifiers like aloe Vera and drum stick green should also be increasingly consumed.



Eat Omega – 3 Fatty Acids ^[1]

Omega 3 – fatty acids containing food include fish, free – range eggs, flax seed oil, tuna and wild salmon. Omega 3 – fatty acid with foods boosts the immune system and can naturally increase the platelet level count.



Amino Acids ^[1]

The increased amount of amino acids should have a positive impact on increasing the platelet count. Bee pollen, which is a source of amino acids, vitamins and other substances have an extremely beneficial effect on the process of haematopoiesis.

Antioxidants Rich Whole Grains ^[1]

According to a study that appeared in the September – 1999 issue of the American Journal of Clinical Nutrient, researchers found that anti oxidants such as vitamin- E & phytoestrogens found in whole grain appeared to increase blood platelet levels by reducing the platelet aggregating effect of the blood.

Walnut, Peanut, Black Sesame and Pumpkin Juice^[1]

Walnut, cooked carrots, black sesame, squid, peanuts, lean meats and milk for promoting platelet count. Sesame oil has properties that raise platelet levels. Juice 4-5 slices of fresh pumpkin to make about ½ glass of pumpkin juice, add 1-2 table spoon of raw honey and used it 2-3 times a day.



References

1. <https://www.google.co.in/webhp?q=5+natural+remedies+to+treat+thrombocytopenia>
2. www.mayoclinic.org/diseases-conditions/thrombocytopenia/basics/causes/con-0027170.
3. www.nhlbi.nih.gov/health/health-topics/topics/thcp/prevention.
4. www.livestrong.com/article/339420-exercise-low-platelet-count/.net doctor: thrombocytopenia.
5. leukaemia/bone marrow transplant programme of british Columbia: activity and exercise.
6. University of Pittsburgh medical centre: low platelets.
7. The ohio state university medical centre: preventing bleeding when you have a low platelet count.
8. London health science centre: low platelets.
9. www.medicinenet.com/thrombocytopenia_low_platelet_count/releatedconditions/index.ht.
10. www.nhlbi.nih.gov/health/health-topics/topics/thcp/causes.