

A Note on Thrombocytopenia

Swathi Lingannagari*

Department of Haematology, Mamatha Medical College, Telangana, India

ABSTRACT

Thrombocytopenia may be a condition during which you've got a platelet count. Platelets (thrombocytes) are colorless blood cells that help grume. Platelets stop bleeding by clumping and forming plugs in vessel injuries. Thrombocytopenia might occur as result of a bone marrow disorder like leukemia or a system problem. Or it is often a side effect of taking certain medications. It affects both children and adults [2]. Thrombocytopenia is often mild and cause few signs or symptoms. In rare cases, the amounts of platelets are often so low that dangerous internal bleeding occurs. Treatment options are available.

Keywords: Thrombocytopenia, Leukaemia, Platelets

INTRODUCTION

SYMPTOMS

Thrombocytopenia usually has no symptoms and is picked abreast of a routine origin count (or complete blood count). Some individuals with thrombocytopenia may experience external bleeding like nosebleeds, and/or bleeding gums. Some women may have heavier or longer periods or breakthrough bleeding. Bruising, particularly purpura within the forearms and petechiae within the feet, legs, and mucous membranes, could also be caused by spontaneous bleeding under the skin.

Eliciting a full medical record is significant to make sure the low platelet count isn't secondary to a different disorder. Ensuring that the other blood cell types, such as red blood cells and white blood cells are not also suppressed, is also important. Painless, round, and pinpoint (1 to three mm in diameter) petechiae usually appear and fade, and sometimes group to make ecchymoses. Larger than petechiae, ecchymoses are purple, blue, or yellow-green areas of skin that change in size and shape. They can occur anywhere on the body [1].

A person with this disease can also complain of malaise, fatigue, and general weakness (with or without accompanying blood loss). Acquired thrombocytopenia could also be related to the utilization of certain drugs. Inspection typically reveals evidence of bleeding (petechiae or ecchymoses), alongside slow, continuous bleeding from any injuries or wounds. Adults may have large, blood-filled bullae within the mouth. If the person's platelet count is between 30,000 and 50,000/mm³, bruising with minor trauma may be

expected; if it is between 15,000 and 30,000/mm³, spontaneous bruising will be seen (mostly on the arms and legs).

TREATMENT

Corticosteroids

Dexamethasone or prednisone is typically prescribed to raise your platelet count. You take it once a day in the form of a pill or tablet. An increased or normalized platelet count is usually seen within 2 weeks of therapy, particularly with high-dose dexamethasone. Your doctor will then likely cut your dose gradually over subsequent 4 to eight weeks. The treatment may have to be repeated, but once your platelet count is normal, none is needed again [3].

IVIG (intravenous immune globulin)

If you can't get your platelet count up with prednisone, if you cannot tolerate steroids, or if your count drops after you're done with your treatment, your doctor may suggest IVIG. You take this medication through an IV, usually for several hours a day for 1 to 5 days.

Surgery

If you've got ITP and other treatments haven't raised your platelet levels enough, you'll enjoy an operation to get rid of your spleen. That's the organ that destroys your platelets, so taking it out can give your platelet count a lift. But this doesn't always work.

Getting your spleen removed can make it harder for you to fight

Correspondence to: Swathi L, Department of Hematology, Mamatha Medical college, Telangana, India, Tel: 8466007789; E-mail: swathilingannagari@gmail.com

Received: July 27, 2020; **Accepted:** July 29, 2020; **Published:** August 04, 2020

Citation: Swathi L (2020) A Note on Thrombocytopenia. J Hematol Thrombo Dis 8: 307. DOI: 10.24105/2329-8790.2020.8.307

Copyright: © 2020 Swathi L. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

infections. Your infection risk is greatest within the first 3 months after your surgery.

Rituximab (Rituxan)

This drug is a type of treatment known as biologic therapy. It attacks B cells, a type of white blood cell that can destroy platelets. It's sometimes used if you have severe ITP despite treatment with steroids and you aren't able to have surgery to remove your spleen. Your doctor may also suggest it if you've had your spleen removed but you still have low platelet counts.

Rho(D) immune globulin

This treatment, which you furthermore may take through an IV, is an alternate to traditional IVIG in people that have Rh+ blood. It generally takes less than half an hour. The side effects are similar to IVIG.

If corticosteroids, IVIG, and Rho(D) aren't improving your platelet count and you're having bleeding problems, your doctor may switch to a second set of options. There are pros and cons for each. They include:

Thrombopoietin (TPO) receptor agonists

These drugs are also called platelet growth factors. If you've got severely low platelets even after treatment with steroids, surgery to get rid of the spleen, or rituximab, you'll likely have best on these medicines, but you'll need to take them long-term. A TPO drug may also be used in someone who needs a boost in platelet count for a period of time, such as during an acute bleeding episode, in preparation for elective surgery, or while deciding about, planning, or awaiting a splenectomy.

Two TPO drugs are available: eltrombopag (Promacta) and romiplostim (Nplate). Eltrombopag may be a once-daily pill, and

romiplostim is taken by shot once every week. They get your bone marrow to make more platelets. Side effects include nausea, vomiting, headache, and a higher chance of getting blood clots.

A newer drug called fostamatinib (Tavalisse), a spleen tyrosine kinase inhibitor, is meant to treat thrombocytopenia in adults with chronic ITP who haven't gotten better with other treatments. The initial dose may be a pill twice each day [4].

Immunosuppressant's

Immunosuppressant's, such as azathioprine (Imuran), cyclosporine, and mycophenolatemofetil (CellCept). They work by keeping your immune system in check.

Androgens

Androgens such as danazol (Danocrine). It's not utilized in women because it can cause unwanted hair growth called hirsutism.

Vinca Alkaloids

Vinca alkaloids, such as vinblastine, vincristine (Vincasar), and, rarely, cyclophosphamide (Cytoxan). Doctors sometimes suggest these if you're having severe bleeding and your platelet count isn't getting a boost from other treatments.

REFERENCES

1. <https://www.mayoclinic.org/diseases-conditions/thrombocytopenia/symptoms-causes/syc-2037829>
2. [https://en.wikipedia.org/wiki/Thrombocytopenia#:~:text=Thrombocytopenia is a condition characterized,platelets per microliter of blood.](https://en.wikipedia.org/wiki/Thrombocytopenia#:~:text=Thrombocytopenia%20is%20a%20condition%20characterized%20by%20a%20low%20platelet%20count,platelets%20per%20microliter%20of%20blood.)
3. <https://www.webmd.com/a-to-z-guides/thrombocytopenia-symptoms-causes-treatments#4>
4. Houghton AR, Gray D. Chamberlain's Symptoms and Signs in Clinical Medicine, an Introduction to Medical Diagnosis. CRC Press; 2010;294-296.