Idiopathic Thrombocytopenia Purpura (ITP)

What is Idiopathic Thrombocytopenia Purpura or ITP?

Idiopathic thrombocytopenia purpura is a blood disorder affecting the platelets. It is a condition in which there is bruising (purpura) because there are fewer platelets in the blood than usual (thrombocytopenia) and it is not known what causes it (idiopathic).

You may also hear the condition referred to as ‘immune’ thrombocytopenia purpura which means it could have been caused by something going wrong with the immune system (the body’s defence against infection) or an allergic reaction of some kind.

What causes ITP?

It is unknown what causes ITP, but it can follow childhood infections, like chickenpox. These viral infections trigger the body to produce antibodies to destroy the virus. It is thought that these antibodies target platelets so the spleen and liver see them as foreign and destroy them.

What are platelets?

Platelets are cells found in the blood, along with red and white cells. Platelets are small and sticky and their job is to prevent bleeding after an injury. Platelets are made in bone marrow and then released into the bloodstream. Bone marrow is found in the middle of most bones in the body. Blood tests tell us how many platelets are circulating in the blood (platelet count), but often a small sample of the bone marrow needs to be examined under the microscope. A normal platelet count is between 150 – 400 x10^9/L for any age. A platelet count less than 150 is called thrombocytopenia.

In ITP the bone marrow may be producing platelets normally, but they are then destroyed in the blood circulation because the body has formed antibodies to them.

What are the effects of a low platelet count?

If your child has a low platelet count he/she may develop bruises and red pinprick spots on the skin (petechiae), particularly on the
neck and waist areas. If your child's platelet count is very low they may develop more serious bruising, and may be at risk of bleeding, including internal bleeding.

**What are the symptoms of ITP?**

The main symptom your child may develop is serious bruising on any part of their body or bleeding from their nose and gums. The risk of your child having serious bleeding is extremely low. Platelets are being destroyed quickly and the new platelets being made are active and good at clotting. This means that children with ITP may bruise a great deal but their risk of serious bleeding is low.

**How common is ITP and whom does it affect?**

There are two types of ITP, acute and chronic. The acute form is more common in children and occurs between the ages of 2 and 6 years. Acute ITP usually lasts for 2-6 weeks, with the platelet count returning to normal within 4-6 months. The prognosis is excellent and in 95% of cases the platelet count returns to normal without intervention.

The chronic form of ITP is rare in children and more common in adults. It is characterised by a subtler onset, which lasts for months or years. About 4 in every 100,000 children develop ITP each year. Both children and young adults can develop ITP with it being more common in girls than boys. Re-occurrence is quite rare.

**How is ITP diagnosed?**

A doctor will do a medical history and thorough physical examination and a blood sample will be taken for a complete blood count and reticulated platelet count. Occasionally a bone marrow aspirate is needed. (Refer to Section 4 “Procedures” for further information).

**How is ITP treated?**

Often children do not need any treatment unless they have severe bruising or bleeding and most children improve spontaneously. The type of treatment recommended depends on your child’s symptoms rather than their platelet count and all forms of treatment aim to relieve symptoms rather than cure the condition itself. When
treatments are considered, you will have the chance to discuss the risks and benefits of these as opposed to no treatment with the doctor.

The options for treating ITP include:

1. Intravenous immunoglobulin (IVIG) - a solution of globulins (simple proteins), which contains antibodies that help protect against disease. In treating ITP IVIG prevents attachment of the antibody to the platelet, therefore preventing premature destruction by the spleen. It is given intravenously and repeat doses may be needed. Side effects are rare but headaches are listed as the most common.

2. Steroid treatment may be used to decrease antibody production.

3. Anti-D, is a newer specific immune globulin which like IVIG prevents attachment of the antibody to the platelet, therefore preventing premature destruction by the spleen. For Anti-D to be effective, the child must have Rh-positive blood type.

Platelet transfusions are usually not helpful because the antibodies attach to the new platelets, just like the patient's own platelets and are also destroyed by the spleen. Platelet transfusions can be used in emergency situations in an attempt to stop neurological damage such as central nervous system bleeding. Such symptoms could include: changes in behaviour, irritability, confusion, leg or arm weakness, unusual sleepiness.

Splenectomy can be performed for difficult to control ITP or if it lasts for more than 6 months. By removing the spleen the circulating platelets are not destroyed prematurely. However splenectomy is rarely performed.

Living with ITP

- Avoid medicines such as aspirin or ibuprofen that can affect platelet function and increase the risk of bleeding. There is a list of medications found in section six of your folder.
• Discuss with your doctor if there is a need to restrict your child’s activities. There may be times to use caution to reduce the risk of internal injury or bleeding. Contact sports are often avoided. Children should wear a bike helmet when bike riding.

Resources

www.itppeople.com/aboutplate.htm
www.itppeople.com/FAQChildren.htm
www.nhlbinih.gov/health/dci/Diseases/Itp/ITP-All.html
www.ich.ucl.ac.uk/factsheets/diseases-conditions/itp/

APON 2003, Immune Thrombocytopenia Purpura

What’s it called again? Article

Please refer to section 7 “Sources of More Information” or check the parent’s library in McGuiness & McDermott children’s clinic for further information.