melbourne haematology

fact sheet

Idiopathic Thrombocytopenia Purpura (ITP) in Children

What is ITP?

Idiopathic thrombocytopenia purpura (ITP) is a condition that causes low platelets. Platelets are small cells that circulate in the blood and are responsible for preventing bleeding and bruising. Patients with low platelets are at risk of bruising and, rarely, serious bleeding.

What causes ITP?

We do not exactly know what causes ITP, but we know it involves the immune system. ITP is likely caused by an abnormal immune response following a viral infection — one theory suggests the immune system becomes over-active and directed against platelets instead of the virus. These conditions are often called auto (or self) immune disorders.

How common is ITP?

ITP in children is uncommon, occurring in approximately 1 in every 25,000 children.

What are the main problems with having ITP?

Platelets are small cells that stop bleeding and bruising. The normal platelet level is 150,000–400,000 per microlitre of blood. These cells become very sticky at a cut or bruise and form a plug that stops further bleeding.

If a patient has low platelets, they are at risk of increased bruising or bleeding.

How high is the risk of bruising and bleeding?

Most patients with ITP experience only a mild increase in bruising. Some develop small pinpoint spots of bleeding on the skin called petechiae. Others get more extensive bruising, and sometimes bleeding involving the lining of the mouth and nose (mucosal bleeding). Rarely, patients may have bleeding in the bowel. The most serious complication is bleeding into the brain — an international study of 2000 patients recorded only two such episodes; one patient was treated and fully recovered, the other's follow-up is not known.

Some girls with ITP also experience problems with their periods.

Does ITP get better?

ITP in children usually improves without treatment within 6–8 weeks. Some patients have a more prolonged illness — between 5% and 20% will have ITP for longer than 12 months, often called chronic ITP. Many of these patients also improve, but it takes considerably longer.

What is the treatment for ITP?

Treatment is generally recommended when there is more significant bleeding, often from the mouth or nose, and is always assessed individually with your doctor. Treatment may also be needed for girls with heavier periods. Available treatment is known to increase the platelet count but may not change the underlying condition. First-line treatments are:

- Prednisolone — a steroid medication thought to slow down the immune system, taken as a mixture or tablets, often for just a few days. Most children tolerate it well; side effects include increased appetite, disturbed sleep, and some irritability. Thinning of the bones may occur if used for many weeks.
- IVIG — a blood product of concentrated antibodies, thought to work by tricking the immune system. Given via intravenous infusion over a few hours, requiring day admission to hospital. Side effects are uncommon but can include a flu-like feeling for a day or two.

For children with ITP that doesn't improve with first-line treatment, current guidelines support additional options including thrombopoietin receptor agonists (medications that stimulate the bone marrow to make more platelets, available as a tablet or injection) and, less commonly, splenectomy or other therapies — needed in only a small number of children with ITP and best discussed individually with your doctor.

Do I need to restrict my child's activity?

Generally children with ITP can participate in all normal activities, including school and most sports. If the platelet count is very low and there is significant bruising, rough sports may be a concern — not so much for bruising, but because of the risk of head trauma causing bleeding. Discuss this with your doctor, as participating in sport has real benefits and should be encouraged where possible.

What else do I need to do?

Regular blood tests and review with your doctor is generally all that's required — remember, most patients with ITP get better, it may just take a bit longer in some.

References

1. Neunert C, Terrell DR, Arnold DM, et al. American Society of Hematology 2019 guidelines for immune thrombocytopenia. Blood Advances. 2019;3(23):3829-3866.

2. Provan D, Stasi R, et al. International consensus report on the investigation and management of primary immune thrombocytopenia. Blood 2010;115(2):168-186.

3. Bolton-Maggs P. Severe bleeding in idiopathic thrombocytopenia purpura. Journal of Pediatric Hematology/Oncology 2003;25(Suppl 1):S47-S51.

Further Questions?

The information presented in this fact sheet is intended as a general guide only.

Patients should seek further advice and information about **Idiopathic Thrombocytopenia Purpura (ITP) in Children** and their individual condition from their treating haematologist or doctor.

For additional information about blood disorders and their treatment, or to contact one of our specialist haematologists, visit the Melbourne Haematology website:

www.melbournehaematology.com.au