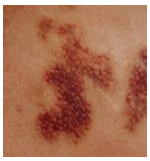
IMMUNE THROMBOCYTOPENIA (ITP)

- ITP is an **immune-mediated** condition leading to **platelet destruction**
- Affects healthy children over 3 months old, most common in those aged 2 to 5 years
- Typically **self-limited:** resolves in 75%-80% of cases within 6 months and 90% within 1 year
- **Incidence:** 5 per 100,000 children annually
- Etiology unknown, often viral trigger

PRESENTATION

The most serious complication of ITP is **intracranial hemorrhage** (occurs in 0.1% to 0.4% of cases).

PHYSICAL EXAM



- Sudden onset mild petechiae and bruising
- 3% of children have bleeding from nose, mucosa, or gastrointestinal tract
- Typically, well appearing child

DIAGNOSIS

Consider classic features on **history**, **physical examination**, and **laboratory investigation.**

INVESTIGATIONS

Isolated thrombocytopenia: Platelet count <100 x 10^9/L, but most cases have a platelet count of <20 x 10^9/L

Normal blood smear, white blood cell count, hemoglobin

Differential Diagnosis: Malignancy, bone marrow failure, autoimmune disorder, infection

PATHOPHYSIOLOGY

- Antibodies directed against platelets causing substantial decrease in count (↑ destruction)
- **Primary ITP:** Immune-mediated thrombocytopenia; Idiopathic
- **Secondary ITP:** Immune-mediated thrombocytopenia with an underlying cause, such as drug-induced, systemic lupus erythematous, immune deficiencies, malignancy (requires further investigation)

Red Flags on History	Red Flags on Physical Exam	Red Flags on Investigations
▪ Constitutional symptoms ▪ Bone pain ▪ Poor response to treatment ▪ Recurrent thrombocytopenia	▪ Unwell appearing child ▪ Lymphadenopathy ▪ Hepatomegaly ▪ Splenomegaly ▪ Signs of chronic illness	▪ Low hemoglobin (no recent explanation of bleeding history) ▪ High mean corpuscular volume ▪ Abnormal white blood cell or neutrophil count ▪ Abnormalities in the blood smear

In children with red flag features, **further investigations are required.**

MANAGEMENT

- Management recommendations depend on severity of symptoms and shared decision making with families
- If not resolved by 6 months, consult hematology

No or mild bleeding (skin manifestations only)	Moderate bleeding (active mucosal bleeding)	Severe bleeding (bleeding requiring hospitalization and/or blood transfusion)
Outpatient management with observation or short-course of oral corticosteroids	Active therapy with oral corticosteroids or intravenous immunoglobulin (IVIG)	Immediate treatment with corticosteroid, IVIG, and platelet transfusion, depending on severity. Consult hematology.

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