

# Thrombocytosis (High Platelets)

## About thrombocytosis

Thrombocytosis is an increase in platelets  $> 600 \times 10^9/L$ , commonly found incidentally in a routine blood test.

There are broadly two types of thrombocytosis:

### ***Primary haematological disease:***

- primary thrombocytosis (also referred to as essential thrombocytosis, or essential thrombocythemia). The clinical features can relate to an increased incidence of arterial and venous thrombosis and bleeding. Most can remain well for decades.
- polycythaemia vera
- primary myelofibrosis
- chronic myeloid leukaemia
- myelodysplastic syndromes

### ***Secondary or reactive (changes are caused by an exaggerated physiologic response to a primary problem):***

- infectious diseases
- inflammatory disease
- neoplasms
- non malignant haematological conditions e.g., acute blood loss, iron deficiency anaemia
- functional and surgical hyposplenism
- tissue damage e.g., recent trauma or surgery
- exercise
- reaction to medications e.g., steroids, adrenalin, low molecular weight heparins
- pregnancy
- allergic reactions

## Assessment

1. History of arterial or venous thromboembolism or bleeding.
2. Look for inflammatory, infective, or neoplastic conditions.
3. Examine for splenomegaly.
4. Investigations - CBC, ferritin, CRP.

## Management

1. If haematocrit (Hct) is elevated or splenomegaly, consider primary polycythaemia vera and request haematology assessment.
2. If haematocrit is normal and no splenomegaly, repeat CBC, ferritin, and CRP in 2 to 3 weeks.
  - If ferritin is low, consider iron deficiency.
  - Thrombocytosis is most likely to be reactive if:
    - platelets are normal and CRP is elevated but decreasing.
    - platelets and CRP remain elevated (ferritin may be raised).

### *Secondary or reactive thrombocytosis:*

Changes are caused by an exaggerated physiologic response to a primary problem:

- infectious diseases
  - inflammatory disease
  - neoplasms
  - non malignant haematological conditions e.g., acute blood loss, iron deficiency anaemia
  - functional and surgical hyposplenism
  - tissue damage e.g., recent trauma or surgery
  - exercise
  - reaction to medications e.g., steroids, adrenalin, low molecular weight heparins
  - pregnancy
  - allergic reactions
- If platelets remain  $> 600 \times 10^9/L$  but CRP and ferritin are normal, it is likely to be essential thrombocythaemia, start low dose aspirin and request haematology assessment. Avoid aspirin if platelets  $> 1500$ , due to bleeding concerns.

## Request

- Request haematologist assessment if platelets remain  $> 600 \times 10^9/L$ .
- Where appropriate, written advice may also be available.