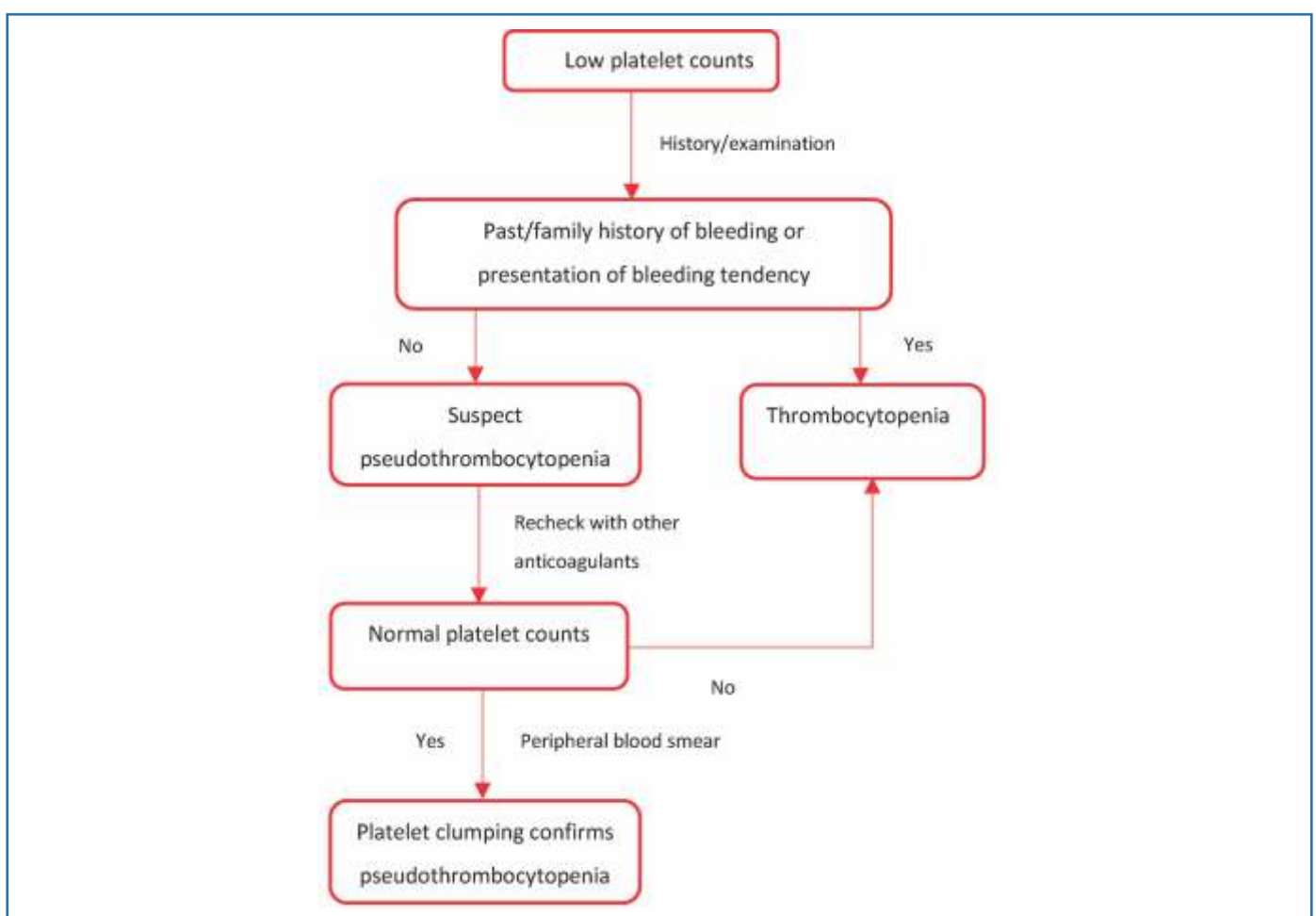


Investigation Corner

Pseudothrombocytopenia – Pause before you treat the patient.

- A normal platelet count ranges from 150,000 to 450,000 platelets per microliter of blood.
- Having more than 450,000 platelets is a condition called thrombocytosis; having less than 150,000 is known as thrombocytopenia. Widespread use of automated hematology analyzers has enhanced the accuracy of test results and significantly reduced the turnaround time of the complete blood count.
- Automated enumeration has increased the reliability of the platelet count.
- However, at times, these instruments may generate spurious test results.
- Such results can result in inappropriate investigations or treatment decisions in patients.
- Unlike thrombocytosis, in clinical practice, thrombocytopenia is much more alarming for the patients and clinicians alike due to the risk of bleeding
- Uncommon phenomenon caused by in vitro agglutination of platelets





The Medical **Bulletin**

- A pseudothrombocytopenia result may occur when automated platelet counting devices are used as the machine cannot differentiate clumps from single cells.
- As a result of platelet clumping, platelet counts reported by automated counters will be less than the actual platelet count.
- As a means of double checking the results, the patient's blood sample is often examined under a microscope
- A second sample run with a different anticoagulant such as citrate (blue top tube) to confirm the finding of pseudothrombocytopenia may be requested if there are doubts or concerns
- This results in patient being diagnosed as having thrombocytopenia spuriously when actually, the number of platelets in blood are within normal limits.
- This condition accounts for 15 to 30% of the cases diagnosed as thrombocytopenia.
- Conditions associated with thrombocytopenia are use of EDTA as an anticoagulant, presence of platelet cold agglutinins, and multiple myeloma
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- Having more than 450,000 platelets is a condition called thrombocytosis; having less than 150,000 is known as thrombocytopenia

Dr. K. Chandramouleeswari