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Management of Incidental Aortic Mural Thrombus in the Setting of Heparin-Induced Thrombocytopenia

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Case Presentation

- 74-year-old female presenting with dyspnea after a recent ICU hospitalization for bronchospasm.
- Found to have saddle and bilateral segmental pulmonary emboli with concomitant DVT of the lower extremities.
- CT also demonstrated aortic mural thrombus (AMT) of the descending thoracic aorta (1.8 x 0.9 x 8.6cm) and the supra-renal abdominal aorta (0.8 x 0.6 x 3.0cm).
- Physical exam noted strong pulses in all limbs with signs of good perfusion.
- Platelet count was difficult to quantify due to clumping, even on EDTA. She was emergently started on argatroban with suspicion for HIT given subcutaneous heparin exposure on last hospital admission. HAPA resulted positive, as did the confirmatory SRA.
- The patient was discharged in stable condition on rivaroxaban, and platelet levels returned to normal.

Discussion

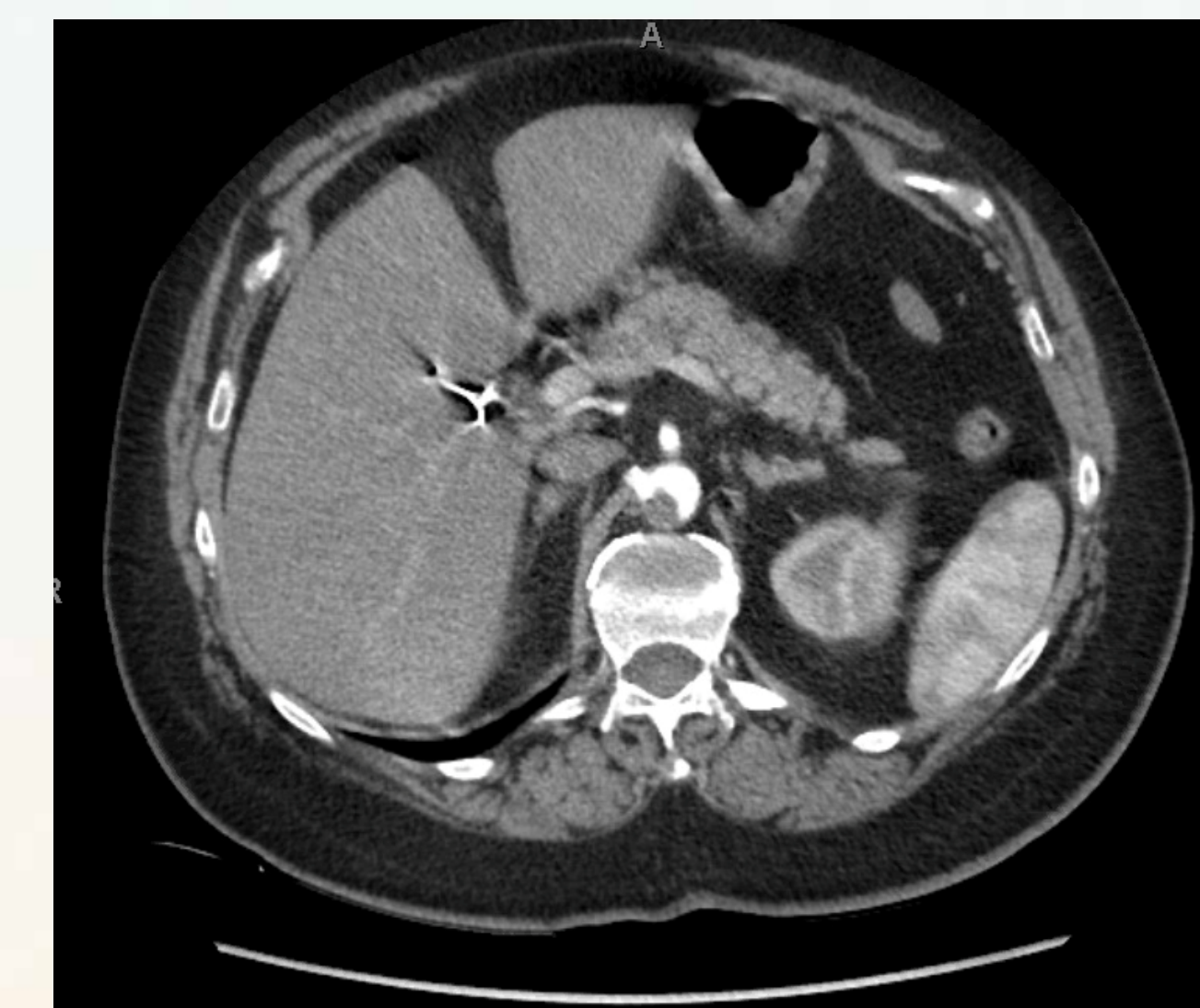
- While venous thromboembolic disease is more common in HIT, arterial thrombus formation can also occur, and its management is less defined. It is estimated that only 7-14% of HIT patients have arterial thrombi, compared to 55% having venous thrombi.⁶
- AMT is a rare condition with potentially severe embolic consequences and no clear consensus on management.^{2-4,9,15,16}
- AMT in an aorta without apparent structural disease is even more unusual.^{1,3-6}
- These arterial thrombi are more likely to form in atherosclerotic arterioles rather than large arteries⁶, making this case more unique.
- Upon extensive literature search, we found 6 case reports of AMT resulting from HIT in a structurally normal aorta without preceding surgery or intravascular trauma.^{6,10-14}

Conclusion

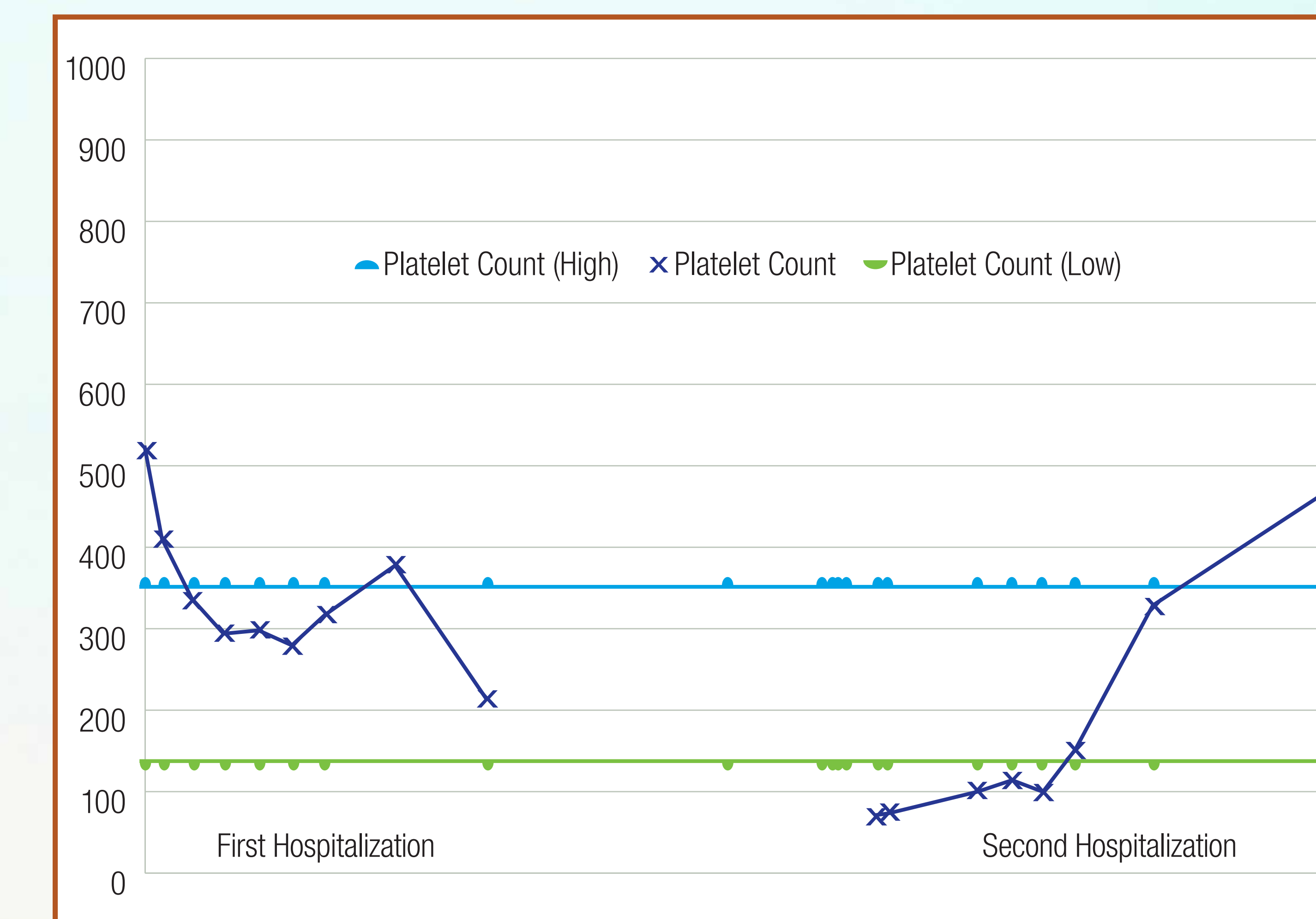
- Thrombi from HIT can form in the arterial circulation, and a clinical suspicion for HIT must be present when investigating the origin of a new thrombus.
- Currently, there are no clear guidelines on the management of AMT in HIT and further investigation is needed.



Thoracic AMT in Sagittal View



Abdominal AMT in Axial View



Platelet trend

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