Extensive life-threatening thrombosis in a patient with heparin-induced thrombocytopenia and factor V Leiden mutation

A 67-year-old man, receiving subcutaneous unfractionated heparin for 18 days was admitted because of femoral artery thrombosis. Biochemical analysis showed thrombocytopenia (29×10^9/L) and a positive test for heparin-dependent anti-platelet antibodies. Heparin-induced thrombocytopenia (HIT) was diagnosed. Computed tomography (CT) showed extensive thrombosis (Figure 1). Doppler ultrasonography demonstrated venous thrombosis in both legs. The unfractionated heparin (UHF) was stopped and the patient was treated with danaparoid sodium followed by warfarin. A CT scan was repeated 14 days later (Figure 2). Further investigations revealed the presence of Factor V Leiden (FVL). FVL has been recently reported in 9.7% of HIT, with no additive risk for thrombotic complications.

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References

Figure 1. CT scan performed at admission. A. Thoracic section, showing: a floating thrombus in the thoracic aorta, (descending part, right side, red arrow); a large thrombus in the main branch of the right pulmonary artery, and a little thrombus in its distal branch (green arrow). B. Abdominal section, showing a large thrombus of triangular shape in the left side of abdominal aorta (left side).

Figure 2. CT scans at the same section level of chest (A) and abdomen (B), performed 14 days after the withdrawal of heparin, showing resolution of thrombosis in both the systemic and pulmonary circulations.