Acute Aortic Occlusion by Massive Piling-Up of Large Unstable Thoraco-Abdominal Thrombi Attributable to Heparin-Induced Thrombocytopenia

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A 64-year-old woman was admitted to the hospital for an acute right leg pain. Clinical examination, revealing a slightly discolored foot with no pedal pulse, went in favor of a limb embolism. Her past medical history was relevant for an endometrial adenocarcinoma treated by radical surgery and adjuvant chemotherapy. The patient confessed being on a 6-week-long course of low-molecular-weight heparin for her port-a-cath occlusion. Subsequent enhanced CT scan showed numerous large aortic mural thrombi (Figure 1). She had a thrombopenia of 120,000 platelets/mL and an anemia of 10 g/dL. Her low-molecular-weight heparin was immediately replaced with Danaparoid sodium given the suspicion of heparin-induced thrombocytopenia. A complete aortic thrombectomy under extracorporeal circulation and through thoraco-phreno-laparotomy was planned for the very next days after cardiac and pulmonary functions tests could be done.

The next day she complained of a sudden abdominal pain paired with tarry vomiting episodes. No femoral pulses were palpated, hypoesthesia and paraparesia of lower extremities and abdominal guarding were found on examination. Abdominal aortic, superior mesenteric, and left renal arteries occlusions attributable to a massive piling up of the mobile mural aortic thrombi were diagnosed on an emergently ordered CT scan (Figure 2). The patient was rushed to the operating room where she underwent transabdominal thrombectomy of the thoraco-abdominal aorta and its tributaries associated with total colonectomy. Large white clots, weighing altogether 56 g, were removed from her aorta (Figure 3). Heparin-induced platelet aggregation assay and PF4-polyanion enzyme immunoassay turned out to be positive, confirming the heparin-induced thrombocytopenia. The patient was discharged at day 30 with no renal function impairment or any lower limb vascular or neurological sequelae. Her control CT scan displayed a thoraco-abdominal aorta free of any residual thrombus as well as patent superior mesenteric and left renal arteries (Figure 4).

References
Figure 2. A and B, MIP views showing acute abdominal aortic occlusion by downwards sliding of the dislodged thoracic thrombi as well as left renal and superior mesenteric arteries ostial occlusion. C, Three-dimensional image confirming the occlusion of the aorta by thrombi-accumulation above its bifurcation. Inferior mesenteric artery also appears occluded.

Figure 3. All the numerous white clots removed from the aorta. There was no associated fresh blood component in these clots. The largest ones measured >2 inches.

Figure 4. Postoperative CT scan 3-dimensional images showing no residual aortic thrombi and completely patent visceral arteries except right inferior renal polar and inferior mesenteric arteries.
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