Mural thrombosis in thoracic aortic stent-graft

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Routine computed tomography (CT) scanning, 1 year after endovascular treatment of a saccular, descending thoracic aortic aneurysm with an Excluder stent-graft (internally covered with polytetrafluoroethylene (PTFE)) (Fig. 1), revealed intraluminal thrombus formation along its length and circumference (Fig. 2A,B), despite antiplatelet therapy (acetylsalicylic acid). No hereditary coagulation disorder is known in this patient. Although previously described in abdominal bifurcated stent-grafts, it is an unreported finding in the thoracic aorta.

Fig. 1. Intraoperative digital subtraction angiogram of a saccular, mid-descending thoracic aortic aneurysm which has been successfully excluded using a 200-mm-long Excluder stent-graft (diameter 40 mm). At the site of the aneurysm, the stent-graft bulges slightly without kinking.

Fig. 2. Contrast-enhanced CT scan of the descending thoracic aorta demonstrating complete exclusion of the aneurysm (diameter 60 mm) by the stent-graft. Surprisingly, however, a large eccentric mural thrombus was observed in the Excluder stent-graft, consisting of a self-expanding Nitinol stent internally covered with a PTFE graft (A). The thrombus continued distally along its full circumference (B).