A 66-year-old female presented for etiologic diagnosis of a mediastinal mass of 6.5 cm × 5.5 cm. Computed tomography (CT) imaging was consistent with a superior vena cava aneurysm involving the right internal thoracic vein (Figure 1). Anticoagulation was initiated in hopes of preventing thrombus formation and pulmonary embolism. Phlebographic study was undertaken to confirm the diagnosis and if feasible attempt endovascular treatment (Figure 2). Exclusion of the aneurysm with remodeling technique was achieved. It consisted in embolization of the right internal thoracic vein by coils through the aneurysmal sac followed by uncovered stent deployment in the superior vena cava and coil occlusion of the neck of the sac through stent meshes (Figures 3, 4). Coil protrusion into the parent vein because of an unfavorable neck-to-sac ratio was then avoided. This approach was preferred to covered stenting of the superior vena cava to preserve the patency of the azygos vein. Superior vena cava aneurysm involving the internal thoracic vein has never been reported as well as its endovascular management. The patient's post-procedural course was uneventful, without flow into the aneurysm cavity (Figure 5). Mediastinal vascular anomalies should always be suspected before an invasive diagnostic approach (1-4). Although very rare, superior vena cava aneurysm should be entertained before planning a CT-guided biopsy of undiagnosed anterior mediastinal masses as the diagnosis
is readily established by contrast CT scan of the chest with image acquisition in the venous phase (2-4). Treatment can be attempted to avoid thrombus formation and pulmonary embolism (3).

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None.

**Footnote**

_Conflicts of Interest:_ The authors have no conflicts of interest to declare.

_Informed Consent:_ Written informed consent was obtained from the patient for publication of this manuscript and any accompanying images.

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