Virtual angioscopy finds the intimal tear of an acute thoracic aortic dissection

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A 72-year-old woman was referred with a hemodynamically unstable condition. Multidetector computed tomography (CT) scans showed a thoracic aortic dissection. The intimal tear was unclear on general views (Fig. 1).

However, virtual angioscopic reconstruction of the CT images showed the exact point and size prior to the operation (Fig. 2). The view was confirmed by intraoperative findings.

Figure 1: Transverse, sagittal, and three-dimensional enhanced CT views did not clearly show the intimal tear of the aortic dissection: (a) transverse view, (b) sagittal view.

Figure 2: Virtual angioscopic reconstruction of the CT images showed the dissection tear within the ascending aorta (opposite the site of the innominate artery on the lesser curvature of the aorta).