

Acute Superior Vena Cava Syndrome: Rare Feature of Stanford B Aorta Dissection

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A 57-year-old man with a history of hypertension and chronic obstructive pulmonary disease presented to the emergency department with acute onset of head fullness, chest pain, breath shortening, dysphagia and dysphonia that had been evolving since 6 hours. There were no history of sleep apnea and blunt trauma. Clinical examination showed cyanosis as well as face and neck swelling. The respiratory and pulse rates were 32/min and 120/min, respectively. Blood pressure was 130/80 mm of Hg in the right arm and 140/60 in the left one. Superior Vena Cava Syndrome (SVCS) was suggested. Plain chest X ray showed superior mediastinum widening. Non-enhanced computed tomography (Figures 1A and 1B) showed neck soft tissues swelling (arrowheads), and a mediastinal hematoma that reached the retropharyngeal space (dashed arrows and arrow, respectively). Enhanced computed tomography (Figures 1C-1F) showed Stanford B aorta dissection (arrows) with irregular borders of the false lumen (dashed arrows) and compression of the superior vena cava by the hemomediastinum (thick arrows). The patient died 10 hours after SVCS onset.

SVCS is caused by malignant mediastinal or lung tumors in 95% of cases. It very uncommonly results from acute aortic dissection [1]. In the few cases reported, the dissection was Stanford type A [2]. Compression of the superior vena cava is explained by either ascending aorta enlargement or mediastinal hematoma caused by dissection rupture. SVCS complicating Stanford type B aorta dissection rupture hasn't previously been reported. SVCS seems associated with poor prognosis of aorta dissection. In order to improve the prognosis of this disease, prevention is essential by early smoking cessation and effective treatment of hypertension.

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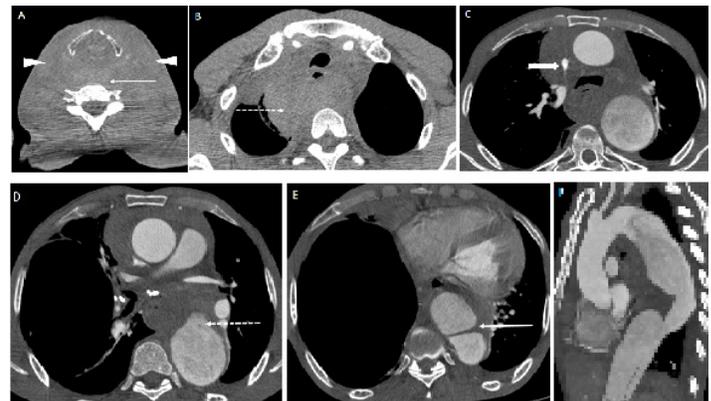


Figure 1. A and B: Non-enhanced computed tomography showing neck soft tissues swelling (arrowheads), retropharyngeal and mediastinal hematomas (arrow and dashed arrows, respectively)

C, D and E: enhanced computed tomography showing:

- Stanford B aorta dissection (arrows) with irregular borders of the false lumen (dashed arrow)

- Compression of the superior vena cava by the mediastinal hematoma (thick arrow)

F: Maximal intensity projection of the aorta

References

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