

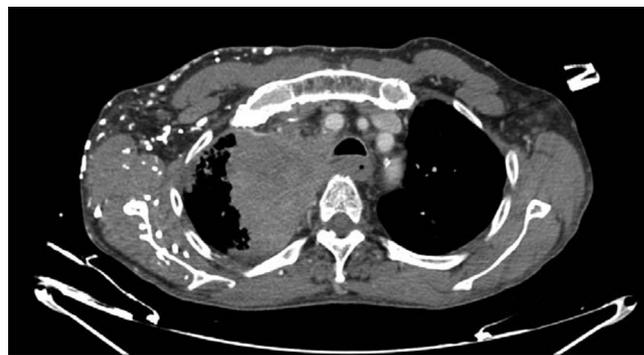
## Collaterals

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**A** 66-year-old man was referred for evaluation because of new-onset facial swelling and right upper lobe pneumonia. Physical examination revealed mild facial and upper extremity edema and prominent collateral veins on his chest,



**FIGURE 1.** Chest CT—coronal view, CT scan of the chest and abdomen, demonstrating a right upper lobe mass, invading the mediastinum and obstructing the superior vena cava. Prominent collaterals appeared on the right side of the chest wall and abdominal wall and are contrast enhanced. CT, computed tomography.



**FIGURE 2.** CT—axial view of the same CT scan. CT, computed tomography.



**FIGURE 3.** CT—axial view of the same CT scan. CT, computed tomography.

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Disclosure: The authors declare no conflict of interest.

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ISSN: 1556-0864/13/0805-0662



**FIGURE 4.** Physical examination—a prominent venous pattern on chest and abdomen.

abdomen, back, and right flank. A computed tomography scan of the chest showed a right upper lobe mass, invading the mediastinum and obstructing the superior vena cava (SVC). Prominent collateral blood vessels were seen in the chest wall, flank, and abdomen.

The patient underwent bronchoscopy and biopsy of the right upper lobe mass, which demonstrated squamous cell carcinoma, stage IIIB (T4N3M0). After the first week of chemoradiation, a relief of his symptoms was observed. Lung cancer is the most common cause of SVC syndrome. When the SVC is obstructed, an extensive venous collateral circulation may develop, including the azygos venous system, internal mammary veins, lateral thoracic veins, paraspinous veins, and esophageal venous network. The subcutaneous veins are important pathways, as demonstrated in this case (Figs. 1–4).