Cavoportal shunt in superior vena cava obstruction

Dérivation cavoporte secondaire à une thrombose cave supérieure

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A 54-year-old woman with history of clear cell ovarian adenocarcinoma presented with cough, chest discomfort and right arm swelling.

After bilateral ovariectomy and hysterectomy, systemic chemotherapy with cisplatin and epirubicin was administered by central venous catheter placed within right subclavian vein.

Physical examination confirmed edema of the face and arms. O2 saturation was 96.6% at room air. Spiral CT was performed to rule out pulmonary emboli.

Superior vena cava was obstructed (arrow) at the level of the aortic arch. Prominent aygos vein was demonstrated (arrowhead) (Fig. 1a). On lower level, a wedge-shaped hyperenhancement (arrows) of segment IV of the liver was demonstrated (Fig. 1b). Prominent collateral vessels (small arrows) in the anterior and lateral abdominal wall and a recanalized paraombilical vein (arrowhead) were demonstrated.

This pattern corresponds to the caval—superficial—ombilical—portal pathway unusually observed in superior vena cava thrombosis. The patient was anticoagulated. Her symptoms improved and she was discharged on coumadin.

In case of superior vena cava obstruction, several venous collateral pathways develop to allow blood to return to the right atrium. In addition to cavo-caval shunt, cavo-portal shunt could be observed [1]. Intense opacification of the anterior quadrate lobe is observed in case of caval—superficial—ombilical—portal pathway [1]. Position and shape of the area of enhancement are characteristic and should not be mistaken for a hypervascular tumor.
Conflict of interest

The authors have not declared any conflict of interest.

Reference


Figure 1  SVC obstruction.