

[ PICTURES IN CLINICAL MEDICINE ]

## Permanent Hemodialysis Catheter Causing Superior Vena Cava Cava Syndrome

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**Key words:** superior vena cava syndrome, permanent vascular catheter, hemodialysis

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Picture 1.



Picture 2.

A 61-year-old woman on regular hemodialysis (HD) for 6 years was admitted because of difficulty moving her body and upper limb edema. Seven weeks before admission, she had undergone permanent right internal jugular HD catheter insertion because of repeated arteriovenous graft occlusion. On admission, she developed swelling of the veins in the chest (Picture 1). Contrast-enhanced computed tomography demonstrated a massive thrombus in the superior vena cava (arrows) and bilateral subclavian vein (Picture 2). She was diagnosed with superior vena cava (SVC) syndrome caused by permanent HD catheter insertion. According to the United States Deep Vein Thrombosis Registry Database, the rate of upper extremity deep vein thrombosis associated with central venous catheter is 6%. Although SVC syndrome is less common in patients undergoing HD than in those with malignancy, patients undergoing HD have a high mortality rate (1). With the increasing use of HD catheters, the risk of catheter-related thrombosis seems to be increasing in pa-

tients undergoing HD (2). The early diagnosis of SVC obstruction in patients undergoing HD with internal jugular catheter may improve their prognosis and treatment outcome.

**The authors state that they have no Conflict of Interest (COI).**

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