CLINICAL PRACTICE

Clinical Images

Nonmalignant Superior Vena Cava Syndrome

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J Gen Intern Med 28(7):970-1

DOI: 10.1007/s11606-013-2362-z

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A 75-year-old man with end-stage renal disease secondary to Crohn's-related chronic renal calculi presented with a pleural effusion and was found to have extensive chest and abdominal wall venous collateral vessels (panel A). These had developed over an 8-year period, during which time he had six prior failures of central venous catheters and permanent thrombosis of arterio-venous grafts. He continued to receive hemodialysis via central translumbar access into the inferior vena cava (IVC) (panel A, arrow). Venous angiography demonstrated critical stenosis of the right innominate vein extending to the superior vena cava (panel B, white arrow) with multiple neck and mediastinal collaterals draining into the azygous vein (panel B).

Historically, 80% of cases of superior vena cava (SVC) syndrome were due to malignant etiologies, but increasing use of central indwelling catheters may now account for up to 40%.¹ Risk factors for catheter-associated SVC occlusion include the location, number and duration of previous catheters,² their composition and the position of the catheter tip.² After 14 months of therapy, 41% of hemodialysis patients demonstrate significant stenosis.³ There is no evidence for prophylactic anticoagulation in preventing venous thromboembolism.⁴ Treatment is typically angioplasty or stenting to restore vessel patency, but may include surgical bypass of the stenosis in certain circumstances.

Received September 10, 2012

Revised November 28, 2012

Accepted January 22, 2013

Published online February 23, 2013

Conflict of Interest: The authors declare that they do not have a conflict of interest.

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