An Occluded Hooklet of an Embedded Inferior Vena Cava Filter

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A 76-year-old woman was admitted due to a femoral neck fracture complicated with massive deep vein thrombosis. A retrievable inferior vena cava (IVC) filter was implanted and the retrieval of the IVC filter was performed after a 16-day indwelling time after the orthopedic operation. A vena cavaogram showed the IVC filter tilting with an embedded hooklet in the caudal end of the filter (Picture A). We removed the filter with endovascular forceps because we were unable to snare it with a snaring device. The hooklet was occluded with hard tissue (Picture B-D), thereby preventing the use of a conventional snaring technique (1, 2). The tissue contained a fresh thrombus (Picture E arrow) with phosphotungstic acid hematoxylin-positive fibrin (Picture F), and vascular tissue with desmin-positive myofibroblastic cells (Picture G). Such findings suggested endovascular damage-mediated myofibroblastic cell proliferation followed by

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thrombus formation. In cases of a compressed/curved IVC due to a dilated or tortuous abdominal aorta or lumbar curvature, the optimal implantation site and indwelling time requires careful evaluation.

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