RF1. Surgical Removal of Inferior Vena Cava Filters with Cavial Perforation or Contra-Indication to Percutaneous Retrieval: Case Series
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OBJECTIVES: We recently had a patient with resolution of abdominal and back pain after open filter inferior vena cava (IVC) removal with strut perforation of the cava. We sought to identify patients with open IVC removal and evaluate indications for surgery, describe operative techniques, and review outcomes.

METHODS: After IRB approval, we reviewed operative reports and hospital charts from 2005-2011, searching CPT codes for foreign body removal (37203) and reconstruction of vena cava (34502).

RESULTS: Four cases of open removal of IVC filters were identified. All patients were female from 30-45 years old. Three had pain of unexplained etiology and filter struts penetrating the cava. Two had failed percutaneous retrieval. One had a tumor involving the IVC and suprarenal filter after pulmonary embolism. The indication for implantation of IVC filters were DVT with progression while on anticoagulation in three patients. The types of filters removed were 1 Greenfield, 2 Bard, and 1 Celect filter.

Removal techniques included laparotomy: two cases had primary caval repair, one case involved a percutaneous approach after cutting away the struts, and one case (with sarcoma) had IVC resection and PTFE graft replacement. The length of stay was 9 ± 6 days, and there were no mortalities. All three symptomatic patients that presented with struts penetrating the cava had resolution of pain.

CONCLUSIONS: Patients with pain after IVC filter placement should be evaluated for strut perforation of the cava. If percutaneous removal is not possible, open removal can be accomplished with minimal morbidity and may resolve pain.