

FIVE THINGS TO KNOW ABOUT ...

Inferior vena cava filters

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Inferior vena cava (IVC) filters may prevent pulmonary embolism in select patients

Under fluoroscopic guidance, IVC filters are placed percutaneously via the jugular or femoral vein. Current guidelines recommend use in patients with known venous thromboembolism who have an absolute contraindication to anticoagulant therapy (e.g., patients with hemorrhagic stroke or recent gastrointestinal bleeding) or those who have recurrent venous thromboembolism despite appropriate anticoagulation.^{1,2} A prospective cohort study involving patients with venous thromboembolism at high risk of bleeding matched 344 patients who received an IVC filter to 344 who did not receive one. Patients in the filter group had a lower rate of death from pulmonary embolism (1.7% v. 4.9%, $p = 0.03$); however, they had a higher risk-adjusted rate of recurrent venous thromboembolism (6.1% v. 0.6%, $p < 0.001$).³

If IVC filters are used appropriately, rates of major complications are low

A recent systematic review showed a low rate of filter-associated complications that were of minimal clinical significance when they did occur. Complications include filter migration, caval thrombosis, new venous thromboembolism, filter fragmentation and erosion of the caval wall.⁵

References

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Use of IVC filters is not recommended as primary prophylaxis in patients at increased risk of venous thromboembolism but without proximal deep vein thrombosis

There is no direct high-quality evidence supporting the prophylactic use of IVC filters in these patients, even if they are unable to receive optimal thromboprophylaxis.⁴ Patients at high risk of venous thromboembolism include those with major trauma, those undergoing bariatric surgery and those in intensive care.

Use of IVC filters is not a substitute for anticoagulant therapy

No high-quality evidence exists surrounding anticoagulation in the presence of IVC filters. However, current guidelines suggest that, whenever safely possible, anticoagulant therapy should be administered to treat and prevent underlying venous thromboembolism.^{1,2}

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