

Inferior Vena Cava Thrombosis Related to Hypothermia Catheter: Report of 20 Consecutive Cases.

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BACKGROUND:

Temperature management using endovascular catheters is an established therapy in neurointensive care. Nonetheless, several case series have reported a high rate of thrombosis related to the use of endovascular hypothermia catheters.

METHODS:

As a result of a pulmonary embolism that developed in a patient after removing an inferior vena cava hypothermia catheter, we designed a clinical protocol for managing and removing these devices. First, an invasive cavography was performed before the removal of the catheter. If there was a thrombus, a cava vein filter was inserted through jugular access. After that, the catheter was removed.

RESULTS:

The venography found inferior vena cava thrombi in 18 of 20 consecutive patients. A concomitant ultrasonography study showed vena cava thrombosis in only three patients. A vena cava filter was inserted in all patients where thrombi were found, without any significant complication. Anticoagulation was started in all patients. No symptomatic pulmonary embolism was diagnosed until the time of discharge.

CONCLUSIONS:

The frequency of thrombosis related to temperature management catheters is extremely high (90 %). Furthermore, ultrasonography has a very low sensibility to detect cava vein thrombosis (16.7 %). The real meaning of our findings is unknown, but other temperature control systems could be a safer option. More studies are needed to confirm our findings.