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Early and Late Retrieval of the ALN Removable Vena Cava Filter: Results from a Multicenter Study

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Abstract Retrieval of removable inferior vena cava (IVC) filters in selected patients is widely practiced. The purpose of this multicenter study was to evaluate the feasibility and results of percutaneous removal of the ALN removable filter in a large patient cohort. Between November 2003 and June 2006, 123 consecutive patients were referred for percutaneous extraction of the ALN filter at three centers. The ALN filter is a removable filter that can be implanted through a femoral/jugular vein approach and extracted by the jugular vein approach. Filter removal was attempted after an implantation period of 93 ± 15 days (range, 6–722 days) through the right internal jugular vein approach using the dedicated extraction kit after control inferior vena cavography. Following filter removal, vena cavograms were obtained in all patients. Successful extraction was achieved in all but one case. Among these successful retrievals, additional manipulation using a femoral approach was needed when the apex of the filter was close to the IVC wall in two patients. No immediate IVC complications were observed according to the postimplantation cavography. Neither technical nor clinical differences between early and late filter retrieval were noticed. Our data confirm the safety of ALN filter retrieval up to 722 days after implantation. In infrequent cases, additional endovenous filter manipulation is needed to facilitate extraction.

Keywords Vena cava filtration _ Pulmonary embolism _ Deep vein thrombosis

Abbreviations
IVC Inferior vena cava
DVT Deep vein thrombosis
PE Pulmonary embolism
LMWH Low molecular weight heparin