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Successful Retrieval of Fractured Vena Cava Filter (OptEase) in Situ at 60 Days after Installation

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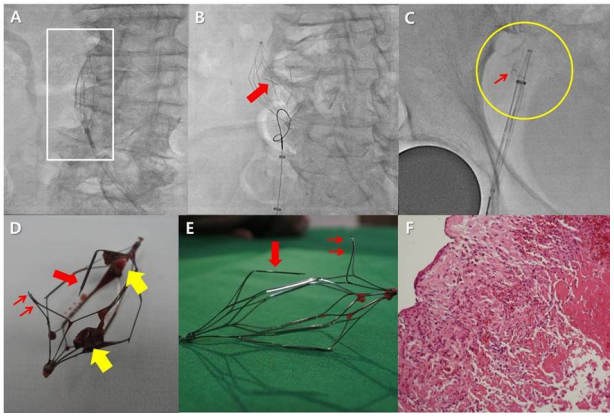
Background: The retrievable type of inferior vena cava (IVC) filter has been widely used to prevent pulmonary thromboembolism in patients with deep vein thrombosis and contraindication of anticoagulation. A fracture of filter strut in situ within 2months of installation is very rare phenomenon. **Case:** A 77-year-old woman was admitted to the orthopedic department due to right sided femoral neck fracture. A leg duplex ultrasound revealed that proximal part of right superficial femoral vein was fully filled with echogenic material and not compressed by probe, which suggested the deep vein thrombosis (DVT). She should undergo an installation of retrievable IVC filter (OptEaseTM: Cordis Europa, Roden, The Netherlands) before surgery (Fig A). 60 days later, we performed fluoroscopy with cavography to attempt the filter removal according to the US Food and Drug Administration's safety advisory recommendation. To our surprise, rotational cineangiography demonstrated fractured struts of filter in situ (Fig B). We barely manage to remove the fractured filter with entrapped flesh using a dual sheath retrieval kit (BARDTM, Bard PV, Arizona, USA) with 20mm loop snare, 6Fr snare catheter, and 9Fr retrieval sheath (Fig C-E). Fortunately, there was no significant caval or femoral venous injury due to piercing fractured struts after retrieval procedure on computed tomography. The pathologic results showed organizing thrombi including immature granulation tissue, fibroblasts, collagen and reduced inflammatory infiltrate (Fig F, H-E with LPF 4 times).



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Long term outcome of poor initial TIMI flow and no reflow during PCI in patients with STEMI

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Background: We evaluated the outcome of initial TIMI flow and no reflow phenomenon during PCI in patients with STEMI. **Methods:** We performed retrospective analysis of patients presenting with STEMI who received primary PCI. Poor initial TIMI flow was defined as baseline TIMI flow grade 0/1 at the initial coronary angiography. No-reflow was defined as suboptimal myocardial reperfusion through a part of coronary circulation without angiographic evidence of mechanical vessel obstruction. The primary endpoint was major adverse cardiac events(MACE): a composite of cardiac death, non-fatal myocardial infarction or target lesion revascularization. **Results:** Median follow-up duration was 42 months. Of 289 patients, 198(68.5%) had initial TIMI 0/1 flow. MACE rate was comparable between the 2 subgroups[16.2%(32 of 198) vs 16.5%(15 of 91), in patients with poor vs good initial TIMI flow, respectively,$p=0.73$]. MACE free survival was also no significant different between poor and good initial TIMI flow($p=0.53$, left in figure). Of 289 patients, 47(16.3%) no reflow phenomenon were occurred during PCI. MACE rate was more frequent in patients with no reflow during PCI[30.0%(14 of 47) vs 13.6%(33 of 242), respectively,$p=0.002$]. MACE free survival rate was significantly low in patients with no reflow during PCI($p<0.001$, right in figure). **Conclusions:** The no-reflow phenomenon is associated with poor prognosis. There is need for development of drugs or devices for prevent and treat no reflow phenomenon in patients with STEMI undergoing primary PCI.