Challenging case:
Massive thromboembolism trapped in IVC filter during total hip replacement arthroplasty

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Disclosure

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I do not have any potential conflict of interest
Recommendation of IVC filter in the setting of acute VTE

1. Adult patients with any confirmed acute PE (or proximal DVT) with contraindications to anticoagulation or with active bleeding complication should receive an IVC filter (Class I; Level of Evidence B).

2. Anticoagulation should be resumed in patients with an IVC filter once contraindications to anticoagulation or active bleeding complications have resolved (Class I; Level of Evidence B).

3. Patients who receive retrievable IVC filters should be evaluated periodically for filter retrieval within the specific filter’s retrieval window (Class I; Level of Evidence C).

Circulation. 2011;123:1788-1830
Massive Pulmonary Embolism
Nils Kucher, Elisa Rossi, Marisa De Rosa and Samuel Z. Goldhaber

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CASE

- F/66
- Rt. femur neck fracture after fall-down
- Referred to ER after immobilization for 1 week
- No significant sx or signs of acute DVT
- Screening Duplex scan for scheduled operation
Duplex scan
IVC filter insertion
Hospital course

- Total hip replacement arthroplasty (THRA)
- Postoperative anticoagulation:
  - PTE prophylaxis with enoxaparin 40mg qd
  - Compression stocking apply
- Rt. leg swelling
- No dyspnea
- Consulted for IVC filter removal and next anticoagulation
IVC venogram for filter removal (POD#1w)
Duplex scan follow-up (POD#1w)
PTE CT (POD#1w)
Anticoagulation

- Anticoagulation switched to NOAC
  - Apixaban 5mg bid

- Discharge
PTE CT (POD#1m)
CT venography (POD#1m)
IVC filter removal (POD#1m)
Duplex scan (POD#3m)
CT venography (POD#6m)
Anticoagulation

- Stop anticoagulation POD#6m
- Stay well w/o recurrence of VTE
CONCLUSIONS

- In this case, temporary IVC filter placement and anticoagulation could prevent massive PTE after operation, and was effective on treating massive thromboembolism trapped on IVC filter and on PTE and DVT of the lower extremity.

- Routine IVC filter placement is not recommended, but appropriate filter usage can prevent massive PTE and has a definite role in high-risk patients.
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