ROLE OF IVC FILTER PRIOR TO THROMBOLYSIS OF ACUTE ILIOFEMORAL DVT

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Disclosure

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ACCP guidelines recommend IVC filter use in patients who cannot be anticoagulated due to bleeding risks.

There is insufficient data to support the use of IVC filters for such situations as recurrent VTE on anticoagulation, recurrent PE with pulmonary hypertension, extensive free-floating ilio-femoral thrombus, and post-thrombolysis of ilio-caval thrombus.

If the contraindication to anticoagulation is temporary, a retrievable IVC filter is preferred.
the placement of inferior vena cava (IVC) filters is a highly debated topic, and for good reason. At conferences, I have heard people say they “never” use IVC filters during venous thrombolysis, while others insist on using them in every case. With such diversity of opinion, it’s challenging to decide on the best methodology. Is there any evidence at all about the proper indications for filter placement?

FILTER PLACEMENT CRITERIA:
Clearly not all patients should receive IVC filters, but some do benefit. When PE is fatal, it is usually not solely because of the size or volume of the thrombus, but also because of the patient’s underlying condition. A thrombus that might kill one patient might barely cause another to cough.

By Gerard O’Sullivan, MD
Stein et al., concluded that IVC filters should be considered in patients with PE who are receiving thrombolytic therapy and in unstable patients who may not be candidates for thrombolytic therapy. The group used data from the Nationwide Inpatient Sample to review over 2 million patients from more than 1,000 acute care hospitals from 1999 to 2008.

- We place IVC filters during PEVI for acute DVT if:
  - The right ventricle is dilated,
  - there is large-volume pulmonary embolus,
  - or if there is IVC thrombus.
Aim
The aim is to measure the need to IVC filter insertion prior to catheter directed thrombolysis and its effect on the morbidity and mortality.
Methods
A prospective randomized cohort study. It took place at Ain Shams University hospitals between 2014 to 2017.
Study

30 cases with Lt Lower limbs extensive ilio-femoral DVT (<14 days) were treated by catheter directed thrombolysis only with no role for pharmaco-mechanical procedures. first angiography after starting CDTs was done after 24 h to do “lysis check” followed by another session if not completely resolved. IVC filter usage for 15 cases (high risk group). They are retrievable type and were removed later on not immediately. IVC filter loading by emboli was divided into (small < 1/3 the diamater) and (large > 1/3). Follow up was done for development of pulmonary embolism intra or post operative within 48 hrs by clinical assessment and CT pulmonary angio and at interval 3,6,9 months by duplex study study to assess recanalization and valve incompetence with CT venography for IVC to assess the filter pre retrieval.
Results

30 cases were collected and divided into 15 without use of IVC filter and 15 cases used it. Only 3 cases have large embolic load in IVC (>1/3) and those patients had positive risk factors (OCP, previous history of DVT and extension of DVT to IVC). 28 cases had successful lysis while 2 patients complicated and aborted (one had hemorrhagic ovarian cyst and the other had retroperitoneal hematoma). 1 case had major complication and needed reintervention due to thrombosed iliac stents and 2 cases had minor ones. 6 cases with IVC filter failed to be retrieved. 2 cases without IVC filter developed pulmonary embolism.
high risk

- OCP
- history of PE
- hypercoagulable
pulmonary embolism

- no PE
- with IVC filter
- without IVC filter
complications

- major
- minor
- aborted
IVC filters

- retrieved
- not retrieved

not retrieved IVC filters

- position
- failed
- large thrombus inside
Conclusion

IVC insertion is not mandatory for patient with extensive iliofemoral DVT who received thrombolysis except for those who have high risk factors or previous history of P.E.
Acute Upper Extremity Deep Vein Thrombosis- Effectiveness of SVC Filter

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