IVC filter retrieval rates
The influence of filter design, practice administration and the operator

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Practice administration
Retrieval rates of inferior vena cava (IVC) filters: are we retrieving enough?
Rebecca Davies, James Stanley, Janaka Wickremesekera, Mansor Khashram

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In Phase 1, of those eligible to have their filter removed, the 12-month retrieval rate was 63%, this improved to 100% in Phase 2. Following implementation of the IVC filter pathway (Phase 2) no patients were lost to follow-up.

The operator
- Indication for filter placement
- Choice of filter
- Site of filter
- Deployment technique
- Retrieval technique

Indications

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In conclusion, a simple technique of keeping tension of the delivery system is described to prevent significant tilting of the jugular Günther Tulip filter. This maneuver prevents accidental pushing of the filter down during deployment that may result in significant tilting of the filter.
Retrieval techniques

How much force?

Force perception study
- 37 IR with experience of IVC filter retrieval
- In vitro
- Force measurement device with GTRS attached
- Hook snared
- Pull until clinically unsafe

Mean maximum force:
- 26.5N (SD 19.7, range 1.0-77.6)

Advanced techniques
- Endobronchial forceps
- Laser sheaths
June 2013 – June 2015

Initially Celect and Celect Platinum

Indication: 49/63 DVT/PE with temporary C/I to anticoagulation

Migration (>2cm): n=0

Fracture: n=0

Asymptomatic IVC penetration: n=4 at retrieval venogram.

All 4 filters retrieved successfully with no extravasation

Successful retrieval in 47/48 patients 98%

Conclusions

- Practice administration
- Operator
- Filter design