Major Complications After IVC Filter Placement & How To Avoid Them

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DISCLOSURES
No financial relationships to disclose
Will not be discussing nonapproved uses/techniques of devices or medications

Indications for IVC Filter Placement

- Hard indications
- Soft indications
- No indications

Indications for IVC Filter Placement

- Low complication rate
- Relatively simple procedure
- High gain, low risk

Complications of IVC Filter Placement

<table>
<thead>
<tr>
<th></th>
<th>MINOR</th>
<th>MAJOR</th>
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<tbody>
<tr>
<td>SHORT-TERM</td>
<td>Bleeding (RPH, Hematoma)</td>
<td>Vessel perforation</td>
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<td></td>
<td>Arterial Puncture</td>
<td>Maldeployment</td>
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<td></td>
<td>Contrast</td>
<td>Embolization</td>
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<tr>
<td>LONG-TERM</td>
<td>Strut Fracture</td>
<td>Embolization of strut</td>
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<td>Perforation into GIT</td>
<td>Caval thrombosis</td>
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Overlook Medical Center

- 400 Bed teaching hospital
- Active neurosurgery service
- 385 IVCF placed over 2 years

Retroperitoneal Deployment

\[ n=2 \]
PULMONARY EMBOLIZATION

Bard Device
Old Delivery System

- Allows for twisting of device within sheath
- Crossing of limbs
- Prevents expansion of legs
- Allows for projectile embolization

Techniques to Avoid Complications

- Avoid spinning device within sheath
- Twist entire delivery system (sheath + filter)
- Design improvements by Bard

Design Improvement

- 174 Bard filters placed
- 0 major complications

Perforation of IVC
n=2
Renewed Interest in Complications

STEPS TO PREVENT COMPLICATIONS

• Pre-deployment venogram
• Avoid twisting shaft
• Keep axis parallel with IVC walls

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