Technique and Value of Endoleak Treatment With Microcatheters. Value of and Technique for Transgluteal and Transcaval Approaches

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Reserch grant
B Braun
Terumo

Invited speaker
Covidien (Medtronic)

Treatment of Type II EL

When to treat?
The most commonly accepted criteria are:

- Persistent endoleak for longer than 6 months
- Sac expansion of >10mm

Additional proposed criteria:

- Large nidus
- High flow within the aneurysm sac
- >3 feeding/drainage vessels
- Feeding artery diameter >4mm

How to treat?
EL-II is considered to function like an AV malformation!

Inflow/outflow must be blocked

The "nidus" must be reached

Embolization

Options

- Transarterial navigation
  - Via SMA/IMA, lumbar, hypogastric or any artery
- Gluteal artery puncture
  - Percutaneous
    - Translombar
    - Transabdominal
- Direct sac Puncture
  - Transcaval

Transarterial navigation

- Microcatheters 2 - 2.7 F
- Microguides 0.0010-0.0014
- Microcoils
- Onyx or similar

Hypogastric .... gluteral middle sacralis — "nidus"
"Cross over" not allowed
- Trans axillary / humeral
- Ipsilateral fem. artery

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Nr. of cases</th>
<th>Approach</th>
<th>Success</th>
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Transgluteal approach

Transcaval approach

Rosch-Uchida needle set for TIPS
Transcaval approach

- Colapinto needle (TIPS)
- Fluoroscopic guidance
- Guidewires and catheters inside the sac

- Pressure measurement
- Inflow outflow vessels catheterization
- Coils or liquid E.A.
- Check for back flow
- Repeat injection

Direct Puncture

- Planning
- CT guided puncture
- Injection under fluoroscopy

<table>
<thead>
<tr>
<th>Author</th>
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Conclusions

- Endoleak treatment (TII) may be complex, time consuming, challenging and expensive
- All the techniques have proven to be safe
- Check for a real need
- "NIDUS" must be reached
- Inflow-outflow must be blocked
- The overall success rate 70-80%
- Prevention option: intraprocedural sac treatment in patients at high risk for endoleak *