AAA branch embolization before EVAR: does it have value and when should it be done

Disclosure
Speaker name: Franco Grego

- I have the following potential conflicts of interest to report:
  - Receipt of grants/research support
  - Receipt of honoraria and travel support
  - Participation in a company sponsored speakers’ bureau
  - Employment in industry
  - Shareholder in a healthcare company
  - Owner of a healthcare company

- I do not have any potential conflict of interest

AAA BRANCH EMBOLIZATION

Why do we do it?
• Prevention of single case complications?
  1. Selective embolization in patients at high risk for endoleak type II (EII)
  2. Routine embolization
• Reduction of overall incidence of EII and its complications after EVAR?

RISK OF EII: ARE THEY REALLY PREDICTABLE?

Type II endoleak is an enigmatic and unpredictable marker of worse outcome after endovascular aneurysm repair

ADVANTAGES:
• Avoid the procedure in patients considered at low risk

DIASADVANTAGES:
• Development of EII in patients not considered at high risk
• Time-consuming
• Technical feasibility
• Cost

SELECTIVE EMBOLIZATION IN PATIENTS AT HIGH RISK FOR EII

SELECTIVE EMBOLIZATION: WHEN?
BEFORE EVAR
SELECTIVE EMBOLIZATION : WHEN?

DURING EVAR

- Exposure to a single procedure
- Time-consuming compared to standard EVAR
- Technical feasibility

ADVANTAGES

- Single procedure
- Technically easy and fast
- Reduces overall incidence of EII and related complications
- Prevents EII “unpredictable cases”

DISADVANTAGES

- Unnecessary procedure in patients at low risk

OUTCOMES OF ENDOVASCULAR ANEURYSM REPAIR WITH CONTEMPORARY VOLUME-DEPENDENT SAC EMBOLIZATION IN PATIENTS AT RISK FOR ENDOLEAK TYPE II

<table>
<thead>
<tr>
<th>Volume (cm³)</th>
<th>Glue (cc)</th>
<th>Coil</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 125</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>125 - 175</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>175 - 225</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>≥ 225</td>
<td>10</td>
<td>5</td>
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</tbody>
</table>

Inferior Mesenteric Artery (IMA):

- Patency
- Diameter > 3 mm
- Lumbars:
  - 1 couple
  - 2 couple + renal artery
  - 2 couple + accessory renal artery
  - 2 couple + IMA < 3 mm

Role of aneurysm sac embolization during endovascular aneurysm repair in the prevention of type II endoleak-related complications
CONCLUSIONS

• Aneurysm sac embolization in patients at risk for EII is a feasible and secure technique
• Reduction of EII incidence at 12 months
• Reduction of EII-related reinterventions at 24 months
• Reduction of overall costs
• Reliability of the criteria to define patients at risk for EII

Thanks for your attention

I SINCERELY HOPE TO SEE ALL OF YOU IN PADUA AT THE VIP CONGRESS 2016