ETIOLOGIES OF AAA RUPTURE AFTER EVAR

- Endoleaks
- Device Migration
- Progression of Aortic Disease
- Failure of routine postoperative AAA surveillance

Late rupture following EVAR

Incidence: 16.2% → 16 rEVAR over 99 rAAA

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>rEVAR</td>
<td>15</td>
<td>16</td>
<td>19</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>%</td>
<td>6.7</td>
<td>12.5</td>
<td>21</td>
<td>14.3</td>
<td>31.5</td>
</tr>
</tbody>
</table>

Second year +++

Mean delay: 49.5 m

37.5% unfit for index EVAR

THE EXPERIENCE OF BORDEAUX WITH AAA RUPTURE POST EVAR

- Monocentric, retrospective, observational study between 2009 and 2016
- Late rupture: > 30 days, confirmed by angio-CT scan
- Aim of the study: report the incidence, identify the causes, evaluate the management.
- Main outcome: in-hospital mortality

Late rupture following EVAR

Causes: an endoleak was always present

- Associated factors: short (<15 mm) or angulated (>60°) neck aneurysmal progression infection

Mean time since last control: 23.6 m

Previous shrinkage in 31%
Late rupture following EVAR

No type III...yet!

OPEN REPAIR

- In the absence of infection:
  - infrarenal aortic clamping + partial stent graft explant
  - significantly less morbidity vs supravisceral aortic clamp + complete explant
  - Temporarily opening the proximal aortic clamp to check rule out Type I or III EL is advisable
  - If the source of bleeding is seen to be from the lumbar or inferior mesenteric arteries, these are suture-ligated
  - And the proximal sealing might reinforced by Prolene sutures

SECONDARY EVAR

- Proximal cuff and/or distal extension
- Home Made F-EVAR
- Cuff + Chimneys

TAKE HOME MESSAGE

- Delayed AAA rupture following EVAR is growing
- It is associated with high postoperative mortality
- It can be managed:
  - by open surgical conversion
  - or secondary EVAR
- Individualize approach to each patient
- Complete stent graft explant is not necessary in most patients
- Respect of IFU and strict follow-up are mandatory to avoid these complications

PERSPECTIVES

Currently working for an automatic follow-up analyse integrating volume evolution and specific measurements
THANK YOU FOR YOUR ATTENTION