Ruptured TAAA: how I do it

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Disclosure

Speaker name: **Roberto Chiesa**

I have the following potential conflicts of interest to report:

- [ ] Consulting
- [ ] Employment in industry
- [ ] Stockholder of a healthcare company
- [ ] Owner of a healthcare company
- [ ] Other(s)

- [x] I do not have any potential conflict of interest
Ruptured TAAA

A catastrophic event!

Rupture is immediately fatal in most cases

Global mortality 82-97%
Contained rupture

TAAA Extent II
Ruptured in the left lung
Contained rupture
Hemodynamically stable

Multimodal approach with adjuncts
Contained rupture
Hemodynamically UNstable

Avoid pre-surgical adjuncts!

- MEP / SSEP
- CerebroSpinal Fluid Drainage (CSFD)
Case #1

17 cm contained RTAAA with shock
Case #1

Urgent open RTAAA repair

Aortic replacement

Visceral and renal perfusion

Proximal clamping

Proximal anastomosis

Thrombus removal
Case #1

Postoperative CT-scan

SMA

RRA

LRA
UNcontained rupture

A real emergency setting …
Emergent treatment without adjuncts

Back to simple clamp and go!
“Clamp and go”

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid</td>
<td>Organ ischemia</td>
</tr>
<tr>
<td>Low Heparin dose</td>
<td>No after load control</td>
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</tbody>
</table>
Case #2

- Ruptured Extent II TAAA - 9 cm
- Bilateral Hemothorax
Case #2

Thoraco-phreno-laparotomy + Clamp and go
Case #2

TAAA Extent II repair
Case #2

Aortic rupture at diaphragmatic hiatus
Results

San Raffaele experience (1989-2021): 1159 TAAA

Ruptured TAAA: 63 pts

<table>
<thead>
<tr>
<th>EXTENT</th>
<th>N</th>
<th>PERIOPERATIVE MORTALITY</th>
<th>PARAPLEGIA/PARAPARESIS</th>
<th>RENAL FAILURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE I</td>
<td>18</td>
<td>5 (27.7%)</td>
<td>4 (22.2%)</td>
<td>2 (11.1%)</td>
</tr>
<tr>
<td>TYPE II</td>
<td>21</td>
<td>8 (38.1%)</td>
<td>6 (33.3%)</td>
<td>5 (23.8%)</td>
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<tr>
<td>TYPE III</td>
<td>13</td>
<td>6 (46.2%)</td>
<td>5 (38.5%)</td>
<td>4 (30.8%)</td>
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<tr>
<td>TYPE IV</td>
<td>11</td>
<td>3 (27.3%)</td>
<td>1 (9.1%)</td>
<td>3 (27.3%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>63</td>
<td>22 (34.9%)</td>
<td>16 (25.4%)</td>
<td>14 (22.2%)</td>
</tr>
</tbody>
</table>
Conclusions

- Threatening condition
- Modulate adjuncts according to pts conditions
- High morbidity and mortality rate