TAVI
how far can we go transfemoral

C. MIALHE, F. LAREYRE, M. BEN HAMMAMIA, F. BOURLON, Y. HABIB

CardioThoracic Centre
MONACO
<table>
<thead>
<tr>
<th>Series</th>
<th>Devices</th>
<th>%</th>
<th>Closure</th>
<th>Rupture</th>
<th>Dissect.</th>
<th>Blood Transf.</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tchetche 2010</td>
<td>Sapien CoreV.</td>
<td>8.9</td>
<td>+</td>
<td></td>
<td>+</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Ducrocq 2010</td>
<td>Sapien</td>
<td>16.7</td>
<td></td>
<td>+++</td>
<td>++</td>
<td>13%</td>
<td>1</td>
</tr>
<tr>
<td>Van Mieghem 2010</td>
<td>CoreV</td>
<td>13</td>
<td>+++</td>
<td>+</td>
<td></td>
<td>8%</td>
<td>1</td>
</tr>
<tr>
<td>Sharp 2010</td>
<td>Sapien CoreV</td>
<td>14</td>
<td>+++</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kahlert 2009</td>
<td>Sapien CoreV</td>
<td>32</td>
<td>++</td>
<td>+</td>
<td>+++</td>
<td></td>
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</tbody>
</table>
Systematic Post TAVR Angio

• Aortography: Access related lesion
  o Dissection
  o Rupture
• Cross over Angio: Suture site lesion
  o Leak
  o Dissection
  o Stenosis
  o occlusion

All identified lesion is fixed.....
Lessons Learnt from Aortic Endograft Experience

1. Arterial closure
2. Iliac pathway
1. PERCUTANEOUS ARTERIAL CLOSURE

*Prostar XL « preclose technique » – Abbott Vascular*
ENTRY POINT

- Angio control
- Echo guidance
HQS combined with Percutaneous Arterial Closure

- Prostar XL (3 years): 365
- EAG (18F – 24F): 190
- ACCESS: 347

- Surgery for Bleeding: 10
  - Arterial Tear: 8
  - Suture Misplacement / Obese: 2
- Surgery for Dissection: 3

**ADDITIONAL CFA SURGERY: 3.7%**
2. DEALING WITH COMPLEX ACCESS

TORTUOSITY

CALCIFICATIONS
3. FORCING ILIAC PATHWAY
IMPACT ON TRANSFUSION

PMSI 2011

– EAG: Infra Renal + Thoracic: 10%
– Open surgery: Infra Renal: 19%

CCM 2010 -2011

– EAG: Infra Renal + Thoracic: (1/104) 1%
Stenosis and Tears
Dissection

Post angioplasty

Post implantation

Post stenting
Iliac Rupture 1
ILIAC ANGIOPLASTY
CCM - TAVI TransFemoral
(November 2009 – June 2014)

- 115 consecutive non selected « de novo » cases:
  - Primary percutaneous fémoral access
  - Prostar® suture mediated

- SFAR$_{(}$sheath femoral artery ratio$)$$: 1.8 (+/- 0.6)$

- Mean age: 84 y.o. (+/-6.4), Men: 54 y.o.
- Euroscore: 19.6 (+/-10.7)
- STS score: 22.9 (+/-10.7)
### Iatrogenic lesions

#### ILIO FEMORAL LESIONS Treated per TAVI

<table>
<thead>
<tr>
<th></th>
<th>Dissection</th>
<th>Stenosis</th>
<th>Leak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total = 28 (24%)</strong></td>
<td>8 (7%)</td>
<td>8 (7%)</td>
<td>11 (10%)</td>
</tr>
<tr>
<td>Prostar related</td>
<td>2 (1%)</td>
<td>5 (4%)</td>
<td>4 (3%)</td>
</tr>
<tr>
<td>Access related</td>
<td>6 (6%)</td>
<td>3 (2%)</td>
<td>8 (8%)</td>
</tr>
</tbody>
</table>

#### POST OP CPLIC (30 D)

|                         | 0          | 0         | 0          | 0          | 1 RPH     | 0          |

#### OPEN REPAIR

|                         | 0          | 0         | 0          | 0          | 4         | 0          |

#### VASCULAR DEATH

|                         | 0          | 0         | 0          | 0          | 0         | 0          |

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CITATION: CENTRE CARDIO-THORACIQUE DE MONACO
POST OP. COMPLICATION = 1
TAVI VASCULAR ACCESS

TWO REQUIREMENTS
Hybrid OR
Multidisciplinary management

ONE POLICY
Primary femoral access
Primary percutaneous approach
Cracking and Stenting
Multiport device