“Endovascular treatment of thrombosis (acute) of aneurysm through bifurcated endoprosthesis: challenge cases”

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

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

- [ ] I do not have any potential conflict of interest
AORTOILIAC OCLUSIVE DISEASE (AIOD)

The endovascular techniques are applicable to treat localized or focal disease:

- mainly the balloon angioplasty with or without stents


Alternative to surgical procedures:

- axilobifemoral bypass
- laparoscopic aortic surgery (robot assisted surgery)


Acute Thrombosis: AAA + AIOD

• It’s a rare, but devastating complication

• 0.7% to 2.8% of AAA surgically treated.

• Mortality rate: 49% to 56%, due to a variety of other acute events.


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Acute Thrombosis: AAA + AIOD

• Associated events: Postsurgical manipulation, trauma, fever, thromboembolic disease, dehydration, hypercoagulability, hypotension, atrial fibrillation, neoplasia, intraplate hemorrhage, occlusive disease of the iliac artery and rupture of AAA

• Small aneurysms + severe AIOD: can lead to acute thrombosis of AAA

- EVAR

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• development of materials and endovascular techniques

• New devices: parallel stent graft; devices with anatomic bifurcation:

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Case 1: EVAR + AIOD

- MALE. 65 Y.O; OCLUSION OF THE DISTAL AORTA + SMALL SACULAR ANEURYSM
- 6 PREVIOUS ABDOMINAL SURGERIES, THE LAST ONE WITH USE OF A DEVICE TO TREAT A RECURRENT HERNIA
- THE CONVENTIONAL SURGERY WAS TECHNICALLY DANGEROUS
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- The iliac and femoral arteries were open, although with important atherosclerotic disease,
Case 1: EVAR + AIOD

- **Right and left femoral accesses**
- **Upper access by the left axilar artery**
Case 1: EVAR + AIOD

- Re-entry to the true lumem through the use of Outback® device
Case 1: EVAR + AIOD

- Kissing-Ballon Technique
Case 1: EVAR + AIOD

INPUT OF THE ENDOPROSTHESIS DELIVERY SYSTEM

AFX ENDOLOGIX® DEVICE
Case 1: EVAR + AIOD
Case 1: EVAR + AIOD

- **Use of bare stent in both iliac artery.**
Case 1: EVAR + AIOD

3D Angiography
After 4 months
Case 2: EVAR + CRF + AIOD

- **Male; 62y.o.; AAA + non-dialytic CRF (Cr 4,3) + AIOD.**
- **We used CO₂ as a contrast media**
Case 2: EVAR + CRI + AIOD

- **3 ACCESS WAYS; INPUT AND RELEASE OF THE AFX ENDOLOGIX® DEVICE IN THE AORTIC BIFURCATION**
Case 2: EVAR + CRI + AIOD

- **Final Angiography:** Total Aneurysm Exclusion; Absence of Stenosis in Aorta or Iliacs; Without Use of Iodated Contrast.
Case 3: AAA + Acute Thrombosis in Aorta

- M, 63 Y.O; PRIMARY ANGIO-CT: A BIG AAA + THROMBOSIS OF DISTAL AORTA AND BOTH FEMORAL ARTERIES OPEN
Case 3: AAA + Acute Thrombosis in Aorta

- 3D RECONSTRUCTION
Case 3: AAA + Acute Thrombosis in Aorta

- **ANGIOGRAPHY = AORTIC OCCLUSION AND VARIOUS COLLATERAL ARTERIES**
Case 3: AAA + Acute Thrombosis in Aorta

- **ANGIOGRAPHY = OPEN ILIAC ARTERIES WITHOUT DISTAL OCCLUSIVE DISEASE.**
Case 3: AAA + Acute Thrombosis in Aorta
Case 3: AAA + Acute Thrombosis in Aorta

- **ANGIOPLASTY:**
  - KISSING-BALOON TECHNIQUE IN THE AORTIC BIFURCATION
Case 3: AAA + Acute Thrombosis in Aorta

- Placement of AFX Endologix® Device
Case 3: AAA + Acute Thrombosis in Aorta

- **NEW ANGIOPLASTY AFTER THE ENDOPROSTHESIS PLACEMENT**
Case 3: AAA + Acute Thrombosis in Aorta

- **Final Image:** Total exclusion of the aneurysm and normal inflow to both iliac artery
Case 3: AAA + Acute Thrombosis in Aorta

• FOLLOW UP AFTER 30 DAYS.
AAA + AIOD

- Narrow neck in the distal aorta (<16mm)
- Aorta and iliacs with occlusive disease.

- Challenges to endovascular treatment
- Need specific devices to perform with safe
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When using the kissing-stent technique with a stent-graft to treat AIOD...

if there is another associated aortic or iliac disease, or both (as complex plaque, aneurysms with or without thrombus; little sacular aneurysms) we may lost the possibility to use another treatment in the future
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CONCLUSION:

- The use of specific endoprosthesis to treat AAA + AIOD shows:
  - An efficient alternative to treatment;
  - An easy, fast and safe accomplishment;
  - Good outcomes in acute and chronic lesions;
  - Low cost, low morbility and low mortality rates with a favorable cost-effectiveness ratio.
Thank you.

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