Exclusion of a traumatic, giant arteriovenous fistula in a thirty-year-old female patient using endovascular technique

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DISCLOSURE

Speaker name: Robert Michał Proczka

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)

☐ I do not have any potential conflict of interest
PATIENT

- 30 year old female
- advanced heart insufficiency
- claudication: 10-20 m
- not able to climb the first floor without rest
- IF 68%
- enlargement of left atrium
- extremely loud murmur heard even without stethoscope
- when on examination we put the hand on the abdomen the pulse like in aneurysm was felt
- on angio-CT huge arteriovenous fistula between proximal internal Iliac artery and internal iliac vein
ANGIO CT

- showed the extreme enlargement of IVC, common iliac and internal iliac vein
- showed enlargement of the common iliac and proximal internal iliac artery
HISTORY

- when the patient was 20-year old and pregnant, had puncture injury with knife
- emergency operation saved the patient and the fetus
- extremely large post laparotomy incision was seen on the abdomen
- no details about the operation are known
- till the next pregnancy /27 years old/ no symptoms of the heart insufficiency
- gave birth to healthy child without complications
HISTORY

- after childbirth the patient developed quickly the symptoms of heart insufficiency
- IF 68%
the fistula was located between proximal IIA and IIV, nearly 3 cm long.
the origin of the fistula about 1 cm from the IIA bifurcation
ANATOMICAL FEATURES OF FISTULA

below the fistula large decrease of the diameter of IIA /5mm/
we decided to perform endovascular procedure, as the procedure of choice, due to adhesions after previous laparotomy
PROCEDURE

- 2 cm incision in the groin
- exposure of the right common femoral artery
- puncture of the artery
- crossing the bifurcation with the Therumo Stiff Glidewire
- angiography
PROCEDURE

- cannulation of a distal part of IIA
- change to Back-up Meier stiff wire
- cannulation of left CFA with 4F introductor
- pig-tail to the aorta from left side
PTFE COVERED, TAPERED, SELF-EXPANDABLE, NITINOL STENT 14X9X60. BALTON COMPANY

OTW system, 110cm long, 0.035”
PROCEDURE

- stent implantation
- control angiography
Immediately after procedure patient could walk and climb the stairs without rest.
CONTROL ANGIO-CT
(4-MONTHS FOLLOW-UP)
CONTROL FOLLOW-UP

- the patient did not report any symptoms
- the patient could run and climb the stairs without rest
- no complications were observed during one year after the procedure
CONCLUSION

- endovascular procedure is procedure of choice
- stent should be implanted from arterial side
- atypical stent often needed
- cannulation of the distal portion of the artery can be extremely difficult
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