Ilio-renal endovascular bypass: an innovative technique to preserve an accessory renal artery in endovascular abdominal aortic repair (EVAR)

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Disclosure

Speaker name:

........CRISTINA TELLO-DÍAZ

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
AIM

Our purpose is to describe an innovative endovascular technique to preserve accessory renal arteries in EVAR to maintain renal function as well as its evolution and complications.
CASE PRESENTATION

85 year-old male

Ex-smoker

Hypertension and dyslipidemia

COPD

Chronic kidney disease stage III

(GFR 45)
CASE PRESENTATION

Hypoplastic right renal artery

6mm right accessory renal artery (ARA) arising from the aneurysm sac

59 mm diameter ABDOMINAL AORTIC ANEURYSM
CASE PRESENTATION

AORTO-UNI-ILIAC ENDOGRAFT
(Endurant II de Medtronic® 32x14x105 with extension 16x20x154)

+ 

FEMORO-FEMORAL DACRON BYPASS

+ 

RIGHT RETROGRADE ILIO-RENAL ENDOVASCULAR BYPASS
from right iliac artery to ARA
CASE PRESENTATION

RIGHT RETROGRADE ILIO-RENAL
ENDOVASCULAR BYPASS
from right iliac artery to ARA

4 balloon-expandable covered stents
Advanta V12®
6x59, 9x60, 12x60, 12x60
CASE PRESENTATION

INTRAOPERATIVE ANGIOGRAM

✓ Correct exclusion of the aneurysm
✓ No endoleaks
✓ Patency of both renal arteries and ARA

Patient was discharged from hospital without renal impairment
First month’s CT
CASE PRESENTATION

Post-operative follow-up → stability

4 years later: CT scan

Sac enlargement up to 86 mm
Type IIIa endoleak
Iliorenal stents decoupling
CASE PRESENTATION
CASE PRESENTATION

4 years later: CT scan

Sac enlargement up to 86 mm

Type IIIa endoleak

Iliorenal stents decoupling

PATIENT DECLINED FURTHER TREATMENT
CASE PRESENTATION

1 year later...

LUMBAR PAIN + PULSATIL ABDOMINAL MASS

Ruptured abdominal 110 mm diameter aneurysm
CASE PRESENTATION

LEFT IB ENDOLEAK
CASE PRESENTATION

RIGHT COMMON ILIAC OCCLUDER

LEFT COMMON ILIAC EXTENSION
CASE PRESENTATION

Patient was discharged 1 week later
RESULTS

Today, 16 months after last surgery...

The patient remains asymptomatic
Stable renal function
No evidence of endoleaks or sac enlargements
 COMMENTS

✓ The management of accessory renal arteries is a challenging situation in patients who undergo endovascular aortic aneurysm repair.

✓ Ilio-renal endovascular grafting can be an alternative to fenestrated/branched grafts in old patients with CKF.
They are technically less complex, lower dose of contrast is required and surgical time is lower. This technique can be used in emergency situations.

Covered stents with longer areas of overlapping should be considered to prevent disconnections and complications.
THANK YOU
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