Importance of Hip Flexion and Extension in External Iliac Stenting: How To Minimize Its Detrimental Effects. Are Covered Stents Advantageous?

Prof. Franco Grego

Worse patency rates in cases of iliac stenting involving the external iliac artery (EIA). Lesions involving the EIA are commonly characterized by:

- Greater extension (also CFA and/or CIA)
- Smaller artery diameter
- Poorer runoff
- More external forces acting to the artery

INTRODUCTION

External iliac and common iliac artery angioplasty and stenting in men and women


STENT CHOICE

Self-expanding covered stents for external iliac artery lesions and occlusions because:

- Covered stent (no risk of rupture or intimal hyperplasia)
- Adaptability to the artery wall
- Adaptability to EIA tortuosity and plasticity
- Conformability to the aortic carrefour in case of long lesions (CIA+EIA)
- Availability 10-15 cm in length
TECHNICAL CONSIDERATIONS
CIA involvement: Overlapping

1° OPTION: long covered stent to cover both CIA and EIA

PROs:
• No mechanical stress between different overlapping stents

CONs:
• Hypogastric artery patency
• Not feasible for high diameter mismatches between CIA and EIA

TECHNICAL CONSIDERATIONS

∅ 8-10 mm
∅ 6-8 mm

2° OPTION: Two overlapping stents

∅ 8-10 mm
∅ 6-8 mm

TECHNICAL CONSIDERATIONS
Stent extension

TECHNICAL CONSIDERATIONS
CFA involvement

CONCLUSIONS

• Endovascular treatment of the iliac axis is characterized by worse outcomes when the external iliac artery is involved.
• This may be related to several factors, including the presence of mechanical stress exerted on the external iliac artery by hip movements.
• These are our preliminary considerations from an ongoing prospective study on the effects of hip flexion on external iliac artery stenting.
• Up to now it seems the use of more conformable self-expanding covered stents, and other specific technical tips regarding CFA endarterectomy and stent overlapping, may optimize outcomes.
THANK YOU FOR THE ATTENTION

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