Advantage of Hybrid procedures in Femoral Artery Reconstruction

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Disclosure

Speaker name: .................................................................

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
Anatomical features of femoral artery

• Bifurcation of femoral artery
• Near the joint
• Movement
• Complex force
Potential problems

1. Disappearance of deep femoral artery after PTA
2. Unreasonable stent position induces Secondary thrombosis

Crossover stenting across the deep femoral artery entry: a multicenter retrospective study

High incidence of thrombosis in CO group

(NC, n = 71) +

(CO, n = 54)
3. Influencing long-term patency rate

2016-9-5

2017-1-17
4. Influencing the flow of deep femoral artery
5. stent fracture

### Table IV. Techniques of reconstruction of femoral bifurcation

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<th>Technique</th>
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<td>across side branch</td>
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<td>Two stents technique: reverse T-stenting</td>
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**Results:** Procedural success was achieved in 96% of cases. At a mean follow-up of 24 months (with 1 patient lost of follow-up), the absence of binary restenosis was 92.5%. At the end of follow-up, 82% of patients continued to show clinical improvement. Freedom from TLR was 97%. Stent fracture rate at 1 year was 9%.

**Conclusions:** PTA of the CFA and its bifurcation is a reliable technique with good midterm functional results. These results justify performing a randomized study comparing surgery and endovascular treatment.
6. Stent occlusion again

2014-7

2015-5
Conversion to open surgery

High risk, high trauma and high mortality

From the New England Society for Vascular Surgery
Think

- How to reduce these problems?
- Optimal solution
- Can patients benefit?

Patency rate
Economics
Hybrid technology

- Open combined with Endo

- Complex and simple hybrid procedures enable multilevel revascularizations in high-risk patients with comparable patency and limb salvage

- Femoral endarterectomy plays a central role, especially in complex hybrid repairs

J Vasc Surg 2010;51:1425-1435
Case (Endarterectomy + Stent)

Female, 83y

Hypertension 20y

Lower extremity pain for 4y, aggravated for 1w

ABI: Left 0.39
1. Puncture the right femoral artery
2. Left Femoral artery occlusion
3. Open
Endarterectomy

• Cut the Intima

• Thrombosis removed by forgaty catheter
PTA

Put into stents if necessary

Suture blood vessel
Blood flow recovery
Pre-operative follow-up

Pre-operative 6m after operation
Technical success rate of hybrid surgery was 90.5%, with an overall limb salvage rate of 97.4%. Primary patency rates of the hybrid (100) be better than open groups (90.9). Indicate that femoral endarterectomy plays a vital role.
All patients underwent femoral endarterectomy. The hybrid group (HYB) had a concomitant antegrade endovascular FP intervention and was compared with patients with concomitant FP bypass with vein (BPV) and FP bypass with nonvein graft (BPG).
Conclusions: Hybrid procedures have favorable perioperative outcomes compared with open bypass for FP revascularization. Additional research on the long-term outcomes of hybrid procedures is needed.
Summary

- Avoiding the risk of restenosis and fracture of stents
- Protect the deep femoral artery
- Increasing Patency Rate
THANKS
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