Case Presentation:
Endovascular interventions after open surgery of the arteries of the lower extremities

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LEIPZIG INTERVENTIONAL COURSE
Global expert exchange: Selected challenging cases – PVD
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Potential conflicts of interest

I have the following potential conflicts of interest to report:

- Research contracts
- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Royalty

I do not have any potential conflict of interest
3 similar clinical cases

CLI left LL

Multiple endovascular and open surgery left LL

Last surgical treatment: Synthetic Bypass / Prosthesis of SFA

Coronary Bypass
72 years-old male

Occlusion of Fem – Pop prosthesis (2011)
3 Coronary Bypass (2010)

Occlusion popliteal & tibial arteries
Recanalization stiff “Glidewire” 0.035” 0,018” wire - Rotational Thrombectomy 6 F catheter

PTA of peroneal and PTA
3 «Complete» 8,0 x 150 - Synthetic Prosthesis and Popliteal DES ("Onyx" 3,5 x30) - proximal PTA
Follow-up 3 months
Re-occlusion of Peroneal
PTA and DES ("Onyx" 3.0x38) in Peroneal
Control angio

Rivaroxaban 20 mg (6 months) + Aspirin 100 mg + Clopidogrel 75 mg
Follow-up - 12 months
Follow-up - 12 months
Hunting far away in the Siberian forests - bullet wound “mistaken shot” from friend...

Arteries rupture - inexperienced surgeon

*Synthetic prosthesis of SFA – 6 mm (10 months ago)*

Very large wound - long secondary healing

*Thrombosis of synthetic prosthesis – 6 months*
CLI of left LL
Occluded SFA, DFA

3 Coronary Bypass (2013)
Prone position

Access via left popliteal
Short 6 F sheath

0.0014”, 0.0018”, 0.0035” wires

Re-Entry ICFA – “Out Back”
Rotational Thrombectomy

Control angio after 2 passage of “Rotarex” 6F catheter
Postdilatation
“Admiral” 6,0 x 40

“Complete” 7,0 x 150

High residual stenosis

Rivaroxaban 20 mg (6 months) + Aspirin 100 mg + Clopidogrel 75 mg
DCB – “IN.PACT” “Admiral” 6,0 x 120

Predilatation
“Admiral” 5,0 x 80

Postdilatation
“Admiral” 7,0 x 40
Control angio
61 years-old male

CLI both LL

Multiple endovascular and open surgery left LL
Multiple endovascular right LL

3 Coronary Bypass (2011), DM type 2

Thrombophilia

Rivaroxaban 20 mg + Aspirin 100 mg + Clopidogrel 75 mg
Right LL

*Stenting iliac and SFA right LL - 3 years*
Occlusion of stent in right SFA – 2 years

Left LL

*March, 2016 - Stenting iliac + femoral-popliteal bypass - prosthesis (6mm)*

*November, 2016 – thrombosis of bypass – Fogarty thrombectomy via popliteal approach*

*After 7 day – thrombosis EIA and bypass – iliac-deep femoral bypass (8mm) – prosthesis – prosthesis proximal anastomosis*

*After 1 months (December, 2016) – thrombosis prosthesis-popliteal bypass*
Therapy Options

Endovascular therapy

PTA : Angioplasty & Stent
Local lysis ?!
Thrombasmiration ?!
Rotational thrombectomy !!!

Local lysis ?!

Bleeding complications (Major bleedings 5 – 12 %)
ICU stay
Recanalization rate incomplete (70 – 80 %)
Contraindications

Hirsch et al. ACC/AHA Task Force J AM Coll Cardiol 2006;47:1239-312

Left LL - after multiple open surgery
Thrombosis of prosthesis (12 months)
Access?

Antegrade contralateral and ipsilateral - absence of proximal stump
Retro popliteal & tibial - large scars in places of possible puncture
Antegrade and retrograde access via occluded synthetic prosthesis

Antegrade 6F short sheath, wiring stiff “Glidewire” 0,035”, control angio distal run-of - 0,018” - “Rotarex” 6F
Antegrade and retrograde access via occluded synthetic prosthesis

Retrograde 6F short sheath in distal SFA, wiring stiff “Glidewire” 0.035”, control angio - 0.018” - “Rotarex” 6F
Antegrade and retrograde access via occluded synthetic prosthesis
Antegrade and retrograde access via occluded synthetic prosthesis

Via retrograde sheath - proximal stent “Complete” 8,0 x 150 in proximal prosthesis
Via antegrade sheath - distal stent “Complete” 7,0 x 150 with distal sheath removing
Via contralateral access - “Complete” 7,0 x 120 with proximal sheath removing
Control angio
Follow up 6 months

Stop – Rivaroxaban 2 months ago

Thrombosis (1 month) of Prosthesis + stent in distal SFA

CLI Left LL
Access - occluded distal SFA
Retrograde wiring - stiff “Glidewire” 0.035”
Wire externalization - control angio – 0.018”
Second time - Rotational thrombectomy
Control angio after 2 passage of “Rotarex” 6F catheter
"EverFlex" 7,0 x 150; 7,0 x 150; 8,0 x 100
Control angio after Re-stenting
“EverFlex” 7,0 x 150; 7,0 x 150; 8,0 x 100
Control angio after Re-stenting
“EverFlex” 7,0 x 150; 7,0 x 150; 8,0 x 100
Conclusion

- **Endovascular surgery of synthetic bypass/prosthesis due to the absence of other surgical methods of treatment**

- Technological progress of Endovascular surgery. Rotational Thrombectomy

- Alternative access – more opportunities for procedure success with repeated interventions after multiple Endovascular and Open Surgery

- Experience & Success of manipulation
• Stenting of synthetic prosthesis
• Long time OAC

Conclusion

Follow-Up?
Thank you for your attention!
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