SUPERA FOR CTO – SUBINTIMAL APPROACH

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Disclosure

Speaker name:
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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
Subintimal Angioplasty of Long Superficial Femoral Artery Occlusions

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PURPOSE: To investigate the value of subintimal angioplasty (SA) and selective stent placement in the treatment of long (≥15 cm) superficial femoral artery (SFA) occlusions.

MATERIALS AND METHODS: During a period of 4.5 years, 67 long SFA occlusions in 61 patients (52 male, 9 female) were intended to be treated with SA, either retrogradely (n = 55) or antegradely (n = 12). Postprocedural medical treatment included aspirin + ticlopidine/clopidogrel (AT/C) combination. In 25 patients warfarin was also given for 3–6 months. Patients were followed up for 1–30 months (mean 12.5 ± 9.0 months). Hemodynamic patencies were determined with the Kaplan-Meier method, risk factors affecting patency were evaluated with the Cox model, and the patencies of the subgroups were compared with log-rank test.

RESULTS: Subintimal recanalization was technically successful in 59 of 67 occlusions. Technical success was 83% in the first 30 procedures, 92% in the last 37, and 100% in the last 29. Forty-six occlusions were treated with SA alone and 13 with SA and stent placement. On an intention-to-treat basis, primary patency at 6 and 12 months was 49% and 22%, respectively, and assisted primary patency at 6 and 12 months was 69% and 57%, respectively. Patency rates were not significantly different in patients with claudication versus critical limb ischemia, or in those treated with SA alone versus SA and stent placement. With the multivariate Cox model, medical treatment with AT/C combination was identified as the only significant risk factor for both primary patency and assisted primary patency. With the Kaplan-Meier analysis, primary and assisted primary patencies were significantly higher in the warfarin group than the AT/C group (P = .0002 and .0001, respectively).

CONCLUSION: SA is a simple and safe method with a high technical success rate in the endovascular treatment of long SFA occlusions. Long-term patency rates, however, seem unsatisfactory, despite early reports. Subintimal stent placement provides cumulative patency at least as good as SA alone. Warfarin may significantly improve both primary patency and assisted primary patency after subintimal recanalization, but even with this treatment patency rates are still lower than those reported for bypass surgery. Therefore, in long SFA occlusions, SA is not recommended for claudicants but may be valuable in patients with critical limb ischemia.
Subintimal SFA Recanalization

- PTA alone
- PTA + DEB
- PTA + stent (bailout)
Clinical case

Female 83 yy
Diabetes
Right CLI
Low diameter (4 mm)

5 minutes low pressure balloon inflation
Everflex 5 x 150 mm stent deployment
Three months later....
4S rule

• Six F introducer sheath

• Subintimal recanalization

• Super dilatation of SFA subintimal space

• Supera stent implantation
Clinical case

- Male 63 yy
- Diabetes
- Left CLI digital gangrene
Always US control in antegrade accesses
6Fr Antegrade introducer sheath
After failed antegrade approach...
0,018 guidewire re-entry in 4 Fr Ber II diagnostic catheter

Progressive PTA from 4 mm to 6 mm @ high pressure
Post dilatation with 6 x 200 mm balloon

Supera Stent 5.5*200 mm
Completion angiography

1 toe amputation
Always US control in antegrade closure
6 months F-UP

PROXIMAL END POINT

INTRA STENT

DISTAL END-POINT
34 consecutive patients treated with subintimal approach + Supera

Mean lesion length 27.9 ± 10.2 cm

1 year actuarial primary patency 94.1%

No stent fractures
Conclusions

• Aggressive vessel preparation
• Accurate Supera deployment
• Looking forward for Super Sub II study results
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