

Retrograde popliteal puncture for superficial femoral artery recanalization: mid-term result

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Introduction

Re-entry in the true lumen is sometimes not feasible by sub-intimal anterograde recanalization of the superficial femoral artery. There are some re-entry devices.

They are all expensive.

We don't have any refund in Belgium for such material.

We report one case of superficial femoral artery recanalization with impossibility to re-enter into the true lumen. We resolved the problem by retrograde puncture of the popliteal artery.

We report the result after 17 months follow-up.

No conflict of interest

Case report

History

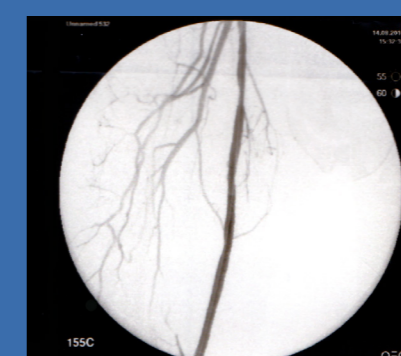
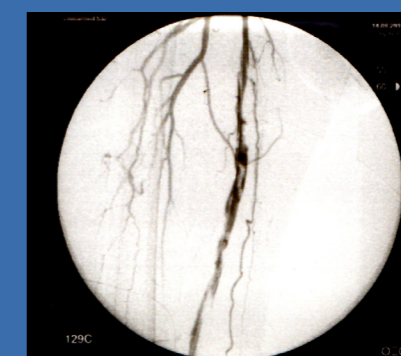
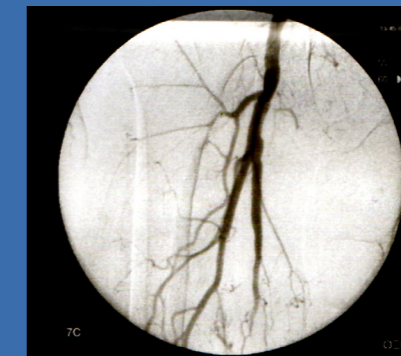
- man, 52 years old
- smoker, arterial hypertension
- right calf pain by walking, category 3 Rutherford PAD
- ABI = 0,5
- complete occlusion of the right superficial femoral artery below the ostium at Doppler ultrasound

Operation

- general anaesthesia
- puncture of the right common femoral artery
- 2500 IU heparin
- 6 French (F) introducer sheath
- angiography: complete occlusion of the distal two-thirds of the superficial femoral artery
- 0,035 guide wire
- sub-intimal anterograde recanalization with the guide wire supported by 5 F straight catheter
- impossibility to re-enter into the true lumen, despite use of angulated catheter
- retrograde puncture of the proximal popliteal artery
- successfully retrograde recanalization with the guide wire supported by 5 F straight catheter
- step by step dilatation with balloon Bard Rival® 5mm-10cm
- severe dissection limiting the flow
- self expandable stents Medtronic Complete SE® 6mm-15cm and 6mm-4cm
- Angioseal® at the femoral puncture site and compression at the popliteal puncture site

Follow-up

- category 0 Rutherford PAD after 17 months follow-up
- ABI = 1,05



Conclusion

Retrograde popliteal puncture is a safe and cheap solution to recanalize the superficial femoral artery when re-entry into the true lumen after sub-intimal anterograde recanalization isn't possible.

Mid-term result is good.

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