Direct stent-puncture as a method for retrograde recanalization of iliac and femoral vessels

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Aims:
To present the direct stent puncture as vascular access to recanalize stent occlusions, exemplified by 2 clinical cases.

1st case:
- Presented with a chronic occlusion of the right iliac arteries.
- Transbrachial and transfemoral recanalization failed, because intraluminal wire placement wasn’t achievable.
- Therefore we punctured the preimplanted stent in the right external iliac artery.
- We used an outback catheter to re-enter the true aortic lumen and snared the wire to continue the intervention from transbrachial.
- After predilatation and stent implantation a Viabahn®-Prothesis was placed to cover the puncture site.

2nd case:
- Presented with an acute total occlusion of the right SFA. Because of an EVAR a transbrachial access was chosen, through only subintimal wire placement was achieved.
- Therefore the preimplanted stentgraft was punctured directly.
- The retrograde wire was snared, and an intra-arterial thrombolysis was performed for 24 hours.
- The angiogram after thrombolysis demonstrate the SFA free from thrombotic material.
- Finally a Viabahn®-prothesis was implanted to cover the punctured stent.

Conclusion:
In our hands direct stent puncture of preimplanted stents is a feasible vascular access route where intraluminal wire passage isn’t achievable. This method demonstrate a low morbidity and complication rate.