Title

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A Comparison of Balloon Angioplasty and Self-Expandable Stent Treatment of Occluded Superficial Femoral Arteries

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Although various modalities have been proposed to improve clinical outcome in patients (pts) with occlusive disease of the superficial femoral artery (SFA), no optimal method has been established. The immediate success and early patency rate of balloon angioplasty (PTA) in a cohort of 57 pts (length of occlusion: 18 ± 11 cm) was compared with the results of a self-expandable stent (WallStent®) in a second group of 21 pts (19 ± 12 cm, ns vs PTA alone). Stents were deployed in 20 occluded SFA's after guide-wire recanalization and predilatation with a 6 mm balloon. Additional stent expansion was performed at high pressure (> 15 atm) using a noncompliant balloon to optimize stent expansion. The initial angiographic success rate, immediate net improvement of Ankle/Brachial Index (δABI), and vascular patency at 3 and 6 months were assessed.

	Occluded length	Initial success rate	ΔABI	Patency (3 months)	(6 months)
Stent group	19 ± 12 cm	95%*	0.21 ± 0.18	90%	80%
PTA alone	18 ± 11 cm	74%	0.16 ± 0.21	82%	50%

*P < 0.05 vs PTA alone)

Conclusion These preliminary results suggest that significant clinical improvement can be obtained in pts with an occluded SFA by using a self-expandable stent compared to PTA alone despite long lesion lengths.