For procedural characteristics, stent diameter, total stent length, and number of stents used were similar between the two groups (6.6±0.5 mm vs. 6.3±0.4 mm, p=0.09, 179±131 mm vs. 167±112 mm, p=0.73, and 2.0±1.2 vs. 1.7±0.9, p=0.32, respectively). For post-procedural IVUS findings, there were no significant differences in minimum stent cross-sectional area (CSA), maximum stent CSA, radial stent symmetry index, and axial stent symmetry index (13.5±3.9 mm² vs. 14.6±4.5 mm², p=0.39, 22.9±5.7 mm² vs. 24.1±6.1 mm², p=0.50, 0.84±0.04 vs. 0.78±0.14, p=0.11, and 0.60±0.12 vs. 0.63±0.19, p=0.59, respectively). Distal lumen CSA was significantly smaller in the ISR group (13.6±4.7 mm² vs. 20.1±7.3 mm², p<0.05).

Conclusions: DES implantation in small vessels was associated with ISR.

TCT-545

Contemporary Safety and Effectiveness of Peripheral Endovascular Interventions and Lower Extremity Bypass Surgery in the Treatment of Symptomatic Peripheral Arterial Disease

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Background: Treatment for symptomatic peripheral arterial disease (PAD) includes peripheral endovascular interventions (PVI) and lower extremity bypass surgery (LEB). Limited comparative effectiveness data exists between the two therapies.

Methods: 1858 patients from two large integrated healthcare systems undergoing PVI (n=883) and LEB (n=975) for claudication or critical limb ischemia (CLI) from January 2005-December 31st, 2011 were examined. We examined the association between procedure type (PVI vs LEB) and 30-day post-procedure complications, subsequent target lesion revascularization (TLR) and major amputations.

Results: Patient undergoing PVI had lower rates of post-procedure complications than patients treated with LEB (11.9% vs. 37.1%, p<0.01) In contrast, rates of TLR were greater for PVI compared to LEB in patients presenting with claudication (3 year TLR was 19.0% [95% CI 15.5, 22.5] and 8.3% [95% CI 5.2, 11.4] respectively, log-rank p=0.001) (Figure 1). There were no differences in the rates of major amputations between the two groups in the CLI cohort (21.2% vs. 25.4%, p>0.05). Patterns were consistent when adjusted by inverse propensity score weights or propensity-matched cohorts.

Conclusions: Subintimal tracking during infrainguinal arterial CTO crossing is more prevalent in long lesions, with blunt distal stumps and side branches, leading to extended procedure and fluoroscopy durations.