EFFICACY OF STENT-SUPPORTED SUBINTIMAL ANGIOPLASTY IN ILIAC ARTERY OCCLUSIVE DISEASE.

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Background: Subintimal angioplasty (SA) is increasingly accepted as a revascularization technique for chronic arterial occlusive disease. However, its efficacy in iliac artery occlusions has not been established. Thus, we investigated the procedural and clinical outcomes of subintimal angioplasty in iliac artery occlusive lesions and compared them with those of intraluminal angioplasty (IA) in stenotic, but non-occlusive iliac artery lesions.

Methods: We retrospectively analyzed data on 139 consecutive patients (159 men, mean age 64.36±9.0 years) with iliac artery lesions (182 limbs) who underwent stent-supported angioplasty from October 2004 through July 2008. Baseline characteristics and procedural and clinical outcomes of patients treated with SA (n=52, 59 limbs) were compared with those of patients treated with IA (n=104, 126 limbs).

Results: Baseline characteristics of both groups were similar, but Lesion length was significantly longer in SA group (81.63±40.39mm) than IA group (45.37±23.00mm) (p-value<0.001). The number of stents used for each lesion was 1.36±0.55 in SA versus 1.08±0.273 in IA (p<0.001). Concurrent angioplasty for other lesions in the same limbs was performed in 27/58 (46.6%) in SA and 49/124 (39.5%) in IA (p=0.370). Immediate procedural success was achieved in all patients of both groups. SA group had no case of complications requiring surgery, but there was one case of distal embolization requiring amputation in IA group. Primary patency at 24 months was 96.2% in SA and 97.4% in IA (p=0.378).

Conclusion: Stent-supported SA in occlusive iliac lesions was safe and showed a high long-term patency rate comparable to that of IA performed in non-occlusive iliac lesions despite longer lesion length. Our data suggest SA might replace surgery in the majority of iliac artery occlusions for which surgical treatment has been the standard therapy.