

Outcomes after PTA of lower limb arteries in diabetic patients with critical limb ischemiaAyubova N., Bondarenko O., Galstyan G., Sitkin I.

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Aim: To evaluate outcomes after percutaneous transluminal angioplasty(PTA), frequency of re-interventions, amputations, survival in diabetic patients with critical limb ischemia (CLI). **Materials and methods:** 87 diabetic patients with CLI were underwent PTA of lower limbs arteries. 41 male, mean 63,4[51-73] age, mean HbA1c - 8,2[7,1-9,1], diabetes type 2-76(87%),29(33%) patents with glomerular filtration rate (GFR)<60ml/min/1,72m²,10(11%) on dialysis. Diagnosis of CLI based on TASC II recommendations. Technical success after angioplasty was defined as a remaining diameter of dilated artery less than 50% at visual inspection at the final angiogram. Follow-up (FU) assessment (11±6 month) included clinical examination for primary patency, wound healing (WH), limb salvage (LS) and mortality (M). Noninvasive vascular laboratory surveillance of the treated segments and tibial runoff was performed at 1, 3, 6, 12 months after PTA. **Results:** The patients were divided into 4 groups, according to the results of endovascular treatment: A-PTA failure(n=20),B-residual stenosis>50% by final angiogram(n=14),C-residual stenosis<50% by angiogram, but >50% by duplex ultrasound(DU)(n=25), D-<50% both by DU and angiogram (n=24). PAD 5, 6 category by Rutherford were in groups: A-in 15(75%), B-11(78%), C-21(84%), D-in 17(70%). Extensive vessel wall calcification was in A,B,C,D in 16(79%), 11(83%), 18(73%) и 6(23%)patients. CKD3-5 was in A,B,C,D: in 9(45%),7(50%),8(33%),5(23%). 3D lesions by Texas classification were in group A-7(35%), B-3(21%),C-4(16%),D-4(16%).5,6,7 classes by Graziani classification were in groups A-17(85%),B-11(79%),C-20(80%),D-9(38%), respectively. In group A during FU period in 5(25%) cases was not ulceration, wound remained unchanged in 9(45%) patients, ulcer recurrence was in 2(10%) cases. CLI recurrence occurred in groups B,C,D in 5(35%), 7(28%), 0(0%)cases. **Repeat** angioplasty was performed in groups A,B,C,D: in 9(45%),6(43%),10(40%), 0(0%)(p<0,05); WH was in 5(33%),9(81%),18(85%),17(100%)(p<0,05); major amputation in 1(5%),2(14%), 0(0%),0(0%);LS was 19(95%),12(86%),25(100%),24(100%); mortality was 3(15%),1(7%),0(0%),0(0%), common survival was 85%,93%,100%,100%, respectively. **Conclusion:** PTA failure, CLI recurrence, repeated PTA was associated with severity of morphological category of PAD, vessel wall calcification, residual arterial stenosis and renal insufficiency.