

Intensive Diagnostic and Interventional Strategy are Need in Diabetic Patients with Peripheral Arterial Disease. O.Bondarenko, K.Pryakhina, I.Sitkin, D.Egorova, G.Galstyan, I.Dedov Research Center of Endocrinology, Dept. of the Therapeutic and Surgical treatment methods of Diabetic foot, Moscow, Dm. Ulyanova str.11, Russian Federation

Objective. To evaluate the involvement of different arterial segments in diabetic patients with peripheral arterial disease (PAD). **Materials and methods.** Between September 2008 and February, 2009 42 diabetic subjects referred to Diabetic Foot Department with clinical signs of limb ischemia. In cases with reduced or absent foot pulses, reduced ankle systolic blood pressure and TcPO₂, duplex scanning (DS) of leg/foot, carotid and renal arteries was performed. In case of stenosis (Sn) more than 50% of vessel diameter the arteriography and peripheral transluminal angioplasty (PTA) was performed. In patients unsuitable for PTA by-pass graft (BPG) was considered. **Results.** 12% of patients had no neither an ulcer nor a rest pain. In 42 patients at least one pedal pulse was reduced or absent, and ankle-pressure was able to evaluate only in 50% (n=21) cases due to medial calcifications and/or ulcer on the dorsal part of the foot. In all patients the TcPO₂ was <50mmHg, and in 82% (n=34) cases it was < 30mmHg. DS demonstrated Sn >50% of vessel diameter of leg in all subjects. All these patients were referred for an angiographic study. Obstructions of >50% of vessel diameter were located in the iliac/femoral-popliteal axis in 5% (n=2), exclusively in the infrapopliteal axis in 38% cases (n=16), and in both femoral-popliteal and infrapopliteal axis in 57% (n=24). In 47% (n=20) cases was found out Sn of carotid arteries >50%, and in 24% (n=10) >70%, in 2 cases was revealed the occlusion of carotid artery at one site. In 19% (n=8) cases was found out >50% Sn of renal arteries and in 2 cases occlusion by one site documented. Revascularization of peripheral arteries was performed in 83% (n=35) patients. A concomitant PTA procedure was performed in 76% (n=32) patients, and there was 15 of stents placed in femoral arteries. A BPG was performed in 10% (n=4) patients. In 17% (n=7) patients neither a PTA nor a BPG was possible due to high surgical risk or lack of outflow, they were treated by a prostanoid therapy. The patients with Sn >70% of carotid and renal arteries were operated (2 endarterectomy of carotid arteries and 2 PTA with stenting of renal arteries). Follow up outcome will be assessed in all cases. **Conclusion.** The multiple diagnostic approaches in diabetic patients with occlusive peripheral disease are highly necessary. The inspection of carotid, renal arteries by using DS as well as peripheral arteries is needed. About 20% and more diabetic patients needed revascularization of carotid and renal arteries.