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ENDOVASCULAR TREATMENT FOR CRITICAL ISCHEMIA OF THE LOWER EXTREMITIES IN PATIENTS WITH DIABETIC FOOT SINROME

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Abstract
According to the calculations of our researchers, occlusive diseases of the arteries of the lower extremities affect from 3 to 10% of the population, increasing to 15-20% among patients older than 70 years [1,3]. In a third of patients with critical ischemiaof the lower extremities, 6-8 years after the appearance of the first signs of the disease, critical ischemia develops. According to some epidemiological studies, the incidence of peripheral artery disease in patients with diabetes is from 10 to 40%, and in the presence of ulcerative foot defects it reaches 50% [4,5]. In Uzbekistan, chronic ischemia of the lower extremities was diagnosedin more than a hundred thousand people. Vascular atherosclerosis is the cause of chronic ischemia of the lower extremities in 80-90% of cases. Especially often this pathology is observed in people over 60 years of age [2].

The Purposeof this Study

Improving the results of treatment of patients with critical ischemia of the lower extremities in diabetic foot syndrome by means of a differential treatment approach, taking into account endevascular interventions.

Matherial and Research Methods

The work is based on the data of examination and treatment of 47 patients with critical ischemia of the lower extremities with diabetic foot syndrome, who received inpatient treatment6ia in the clinical base of the Bukhara State Medical Institute of the Bukhara Multidisciplinary Regional Medical Center for the period 201to 9 to 2022.

Patients underwent surgical treatment: taking into account an angiographic examination using endovascular. Surgical tactics of patients were determined taking into account the results of angiographic studies. Based on the results obtained, X-ray contrasal angiographic examination, as well as the depth of the lesion of the purulent-necrotic process, the methods of minimally invasive endovascular interventions of each particular patient were determined.

Based on the clinical examination, further treatment tactics were determined, depending on vascularization.

Results and their Discussions

When determining the tactics of surgical treatment of patients, endovascular X-ray contrast diagnostics of the vessels of the lower leg and foot was carried out. Taking into account the results of angiographic diagnostics, the method of choosing endovascular minimally invasive surgical intervention to eliminate the blood flow of the affected vessel was determined. To differentiate the approach of endovascular surgical accommodation taking into account the size of the vessels, we divided into three levels of foot vessels.

Level I - the upper level of the foot. Up to the level of the medial ankle. Vascular lumen up to 2.5 mm. (Distal part of the peroneal and posterior tibial artery).

II level - the average level of the foot. The lumen of the vessels up to 2.0 mm. (Dorsal, medial subtargetal artery of the foot).

III level - distal level of the foot. Vascular lumen up to 1.5 mm. (Arcuate, dorsal, metatarsal arteries).

The main diagnostic method for assessing the state of the vessels was X-ray contrast angiographic studies. Angiographic studies were carried out after appropriate preparation under local anesthesia in the angiographic office.

The complex of conservative measures included, as in the control group, the treatment of concomitant diseases and the correction of violations of the rheological properties of the blood.

The study of the level of sugar in the blood showed that by the time of admission to the clinic, on average, it was 12.7±2.1 mmol / L. Against the background of complex conservative and surgical treatment, the elimination of the purulent-necrotic focus, carried out in the postoperative period, helped to reduce the level of sugar in the blood of patients to the figures of the upper limit of the norm by 6-7 days of treatment.

When conducting an X-ray contrast angiographic examination, vascular lesions under the knee artery and the I level of the foot vessels were revealed in 55.3% of patients (distal part of the peroneal and posterior tibial arteries). In 11 (23.4%), patients had stenosis and occlusion at the II level of the foot vessels (Dorsal, medial subtarsal artery of the foot). In 10 (21.2%) patients, vascular lesions were noted in the form of stenosis and occlusion up to III level of the vessels of the foot.

Of the 26 patients with a lesion of the I level of the foot, 12 (46.1%) stenting of the vessels of the distal part of the peroneal and posterior tibial arteries was performed. Indication of stenting of these vessels was: the occurrence of residual vascular stenosis up to 45-50% and the ineffectiveness of transluminal balloon angioplasty.

Of the 26 patients with damage to the level I of the vessels of the foot, 14 (53.9%) patients due to chronic ischemia of the lower extremities caused by occlusion-stenotic lesions of the arteries of the vessels of the foot, balloon angioplasty was performed with subsequent reversal of the affected vessels. In the latter, stenting of the affected areas was carried outaccording to the above method.

As noted above, out of 47 patients, 11 (23.4%) patients had stenosis or occlusion of the II level of the vessels of the foot (dorsal, medial subacute artery of the foot). Of these, 4 (36.3%) stenting of the affected vessels was performed. In 7 (63.7%), patients underwent recanalization of vessels with balloon angioplasty. For this, after establishing the level and degree of vascular damage, recanalizationof the vessels was performed.

In 10 patients with damage to the III level of the vessels of the foot (arcuate, dorsal, metatarsal arteries). In 4 (40%), patients underwent a reconalization operation with balloon angioplasty. In 6 (60%), patients due to a severe form of chronic ischemia of the lower extremities caused by occlusive-stenotic lesions of the arteries of the 3rd level of blood vessels were limited to performing reconalization of the affected vessels. The use of angioendovascular diagnostics and the differential approach of endovascular surgery with the division depending on the size of the vessels of the foot into 3 levels changed the indicators for the better after surgical complications and results andinvestigations.

Conclusion

All of the above allows us to recommend the necessarily wide application in clinical practice of the method of surgical treatment using angiographic examination, taking into account the 3rd level of the size of the vessels of the foot, to conduct endovascular intervention using minimally invasive methods of riversanalizium, balloon angioand eraser and stenting of distal vessels. In this case, stenting and balloon angioplasty should be used for damage to the I level of the vessels of the foot up to 2.5 mm in size, which often coincides in the projection of the distal part of the fibula and posterior tibial artery. With damage to the II level of the vessels of the foot with dimensions up to 2.0 mm (Dorsal, medial subtargetal artery of the foot) more effective is the use of stenting with angioplasty with reconalization. With occlusion of the III level of the vessels of the foot with dimensions up to 1.5 mm (arcuate, dorsal, metatarsal arteries), the use of reconalization and balloon angioplasty is more optimal.

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