EVALUATION OF POST-SURGICAL EFFECTIVENESS OF POPLITEAL ARTERY ANEURYSM TREATMENT

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Introduction. With popliteal artery aneurysms accounting for nearly 70-80% of all aneurysms of peripheral localization, 47% of cases revealed a complicated course of pathology [1]. As this condition is an absolute indication for surgical intervention, resection of the popliteal artery with prosthetics is considered the surgical treatment of choice [2, 3].

Aim of the study. To evaluate the efficiency of surgical reconstruction on popliteal artery aneurysms of varying clinical courses.

Materials and methods. During a period of 2 years, a total of 10 male patients, all of whom were between the ages of 32 and 73 who underwent reconstructive surgery for popliteal artery aneurysms were examined. Thrombosis of the lumen of the popliteal arterial aneurysm along with the main arteries of the leg were seen in six patients. Among two patients acute arterial insufficiency (IA and IIB according to V.S.Savelyev) developed similar to one another, while in four other patients chronic critical ischemia developed, 3 in IV stage and 1 in III stage according to R.Fontain[4]. Four patients had a f pulsating popliteal artery aneurysm as an indication for surgery.

Results and discussion. Atherosclerosis was the leading cause of aneurysm in 9 of the cases, whereas obliterating thrombangiitis was seen as the cause in the remaining cases. In one of the cases of atherosclerotic aneurysm transformation, a process of systemic dilatation was noted in all arterial networks of the lower extremities up to a thrombosed aneurysm in the popliteal region, where a stent graft was endoluminally implanted in the patient three months prior to the episode of thrombosis in order to isolate an abdominal aortic aneurysm. Accordingly surgical vascular reconstruction in the popliteal position or on the femoral-popliteal-tibial segment in an emergency setting and also on an elective basis was conducted on all patients. Localization of pathology was the main point that played in the choice of reconstruction surgery as well as the presence and occurrence of occlusive obstructive process.

Autovenous prosthetics of the popliteal artery with or without resection of the aneurysm of this vessel from dorsal surgical access to the named arterial segment was undergone by 7 patients. Frequency of use of posterior (dorsal) access (according to N.I. Pirogov; a vertical incision 10-15 cm long) is 1.6-2.5% in relation to all

reconstructions using the popliteal artery per year (data from the vascular department of the Grodno University Clinic).

Three patients who had sufficiently extensive chronic occlusions in both the inflow vessel (superficial femoral artery) and outflow vessels (distal portion of the popliteal or tibial arteries), had limb revascularization performed by femoral-popliteal or femoral-tibial autovenous prosthetics by a typical medial approach. No intraoperative complications were seen in all the operated patients with outcomes after surgery being mostly successful.

Only in 1 patient who had prolonged multifocal arterial dilatations, repeated total arterial rethrombosis was observed on the second day and, due to the results of progressing ischemia, limb had to be amputated at the level of the middle third of the thigh. In another case, minor non–anatomical amputation of necrotized parts of the foot was performed due to the absence of adequate revascularization as there was no possibility to fully extract blood clots from the main arterial network of the foot.

A patient with femoral-bitibial prosthetics underwent resection of an artery that repeatedly had aneurysm with transformed segment of the autovenous vein and its reprosthetics with an autologous segment taken from the contralateral lower limb 1.5 years after primary reconstruction.

Conclusion. An immediate positive result was seen in the greater part of the cases where reconstruction of the popliteal artery was done with the use of full suitable visual control during the transformation of aneurysm from dorsal access and also allowed long-term preservation of hemodynamics during the postoperative period.

ЛИТЕРАТУРА

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