

100 Anastomoses For Complex Cerebral Aneurysms. Experience Of Federal Neurosurgical Centre Novosibirsk

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Purpose:

To study the experience of the FNC in the application of cerebral revascularization for surgery of complex aneurysms.

Materials and methods:

From 2014 to 2017 in FNC 888 patients were operated on about aneurysms, of which in 100 patients the excluding of aneurysm was supplemented by revascularization.

Results:

The age varied from 3 to 72 years, an average of 47. Localization of aneurysms: ICA 37 (37%), Acom-ACA 6(6%), MCA 48(48%), vertebro-basilar 9(9%). 72(72%) aneurysms were saccular, 28 (28%) fusiform. 77(77%) aneurysms were giant, 37 were thrombosed. Clipping was applied 36(36%) times, 22(22%) trapping, 24(24%) proximal /4(4%) distal occlusion, 10(10%) excision of aneurysm, 4(4%) times combined treatment (revascularization + endovascular intervention) was performed. The operations were accompanied by EI-IC bypasses: low-flow (STA to MCA) - single-barrel - 36, double-barrel - 18, occipital artery to PCA -1; middle-flow (maxillary artery to MCA with arterial shunt) - 2; high-flow (ECA to MCA with arterial or venous shunt) alone 14, with single-barrel safety anastomose (SA)-10, with double-barrel SA -4, with SA and IC-IC bypass-1. Also, IC-IC bypasses were used: end-to-end-3, end -to-end with SA-4, side-to-side-4, side-to-side with SA-2, end-to-end and end-to-side-1. Early radical aneurysms exclusion was 92%. Evaluation with the modified Rankin scale at discharge was 0-1 - 63(63%) patients, 2-3 - 21(21%), 4-5 14(14%), with 2% mortality

Conclusion:

Revascularisation can be used in the surgery of complex aneurysms both to supplement the blood flow, in case of prolonged temporary clamping, and to completely replace it when the aneurysm bearing artery is closed.