

Introduction

With the growing popularity of endovascular therapy, endovascular techniques are being used increasingly for MCA aneurysms. To provide comparative data, we reviewed our results with a large series of unruptured MCA aneurysms treated with open microsurgery.

Methods

We retrospectively reviewed our results with unruptured MCA aneurysms treated surgically from 1997 to the present in a large prospective database.

Results

We treated 775 unruptured MCA aneurysms using open microsurgical techniques during the study period. There were 673 small, 76 large, and 26 giant lesions. 24 aneurysms had been previously coiled. Bypass was utilized in 7% of cases. 21 aneurysms were wrapped, typically because of calcification or severe atheroma precluding safe clip placement. No patients died. One patient with a giant aneurysm suffered delayed saphenous vein graft thrombosis and a resulting severe stroke. Two patients suffered a perforator injury; one was left with mild and one with severe permanent hemiparesis. 4 pateints had a single perioperative seizure, and 4 had transient postoperative neurological deficit probably related to local retraction or venous injury. 6 patients developed a DVT during the first month after surgery, and there were 2 wound infections.

Conclusions

Microsurgical management of MCA aneurysms can be performed with very low morbidity rates. Currently, microsurgical results appear to be superior to those obtained with endovascular techniques. To our knowledge, this represents the largest reported series of unruptured MCA aneurysms treated with microsurgery.

Learning Objectives

1. to understand results and complications from microsurgical management of MCA aneurysm
2. To compare results of endovascular and microsurgical management of MCA aneurysms
3. To review contemporary decision making for mca andeurysms

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