

Introduction

To evaluate the importance of microsurgical resection in 197 consecutive patients with intracranial arteriovenous malformations (AVMs).

Methods

One hundred and ninety seven patients underwent microsurgical removal of their AVMs in our clinic between 1994 and 2017. All surgeries have been done by senior author (YA). There were 109 males and 98 females. One hundred thirty seven patients (69.5%) were presented with hemorrhage. Six patients had associated aneurysms. Their presentation, pre-operative neurological status, post-operative outcome and determinants of postoperative outcome were analyzed.

Results

Post-operative mortality was 4% and morbidity was 8.6%. Neurological improvement was observed in 39 patients (19.8%). All patients had control angiographies before discharged. 181 had angiographically confirmed total removal of their AVMs. Six patients were reoperated. We advised radiosurgery to remaining eight patients. Six associated aneurysm were clipped in the same session. The preoperative neurological status, Spetzler-Martin grade of AVM, and the presence of hemorrhage were found to be determinative factors about outcome.

Conclusions

Microsurgery is an effective treatment with reasonable safety for the majority of AVMs. Microsurgical removal also provides immediate protection against the risk of serious hemorrhage.

Learning Objectives

The importance of microsurgical resection of intracranial arteriovenous malformations.

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