



# Thread Ligation of Middle Cerebral Artery Aneurysms: A Developing Country Alternative to Clipping

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## Introduction

Aneurysms of middle cerebral artery constitute third commonest site of intracranial aneurysms after anterior communicating and posterior communicating artery in most series. Despite their relatively superficial location, patients with ruptured aneurysms often have poor outcome because of high incidence of intra cerebral hematomas, vasospasm and involvement of eloquent areas.

## Methods

Retrospective study of all aneurysms treated in our institution was done and an analysis of factors associated with surgery for MCA aneurysms done. Silk thread ligation of MCA aneurysms was done in 32 cases instead of clipping.

## Results

Total of 1142 aneurysms were treated in our institution, and MCA aneurysms constituted 294, the second commonest site of aneurysms after anterior communicating artery lesions. There was no gender or side preference noted. 20 cases of mirror aneurysms were seen and 64 cases were associated with lesions at other sites. The most common site was MCA bifurcation accounting for 264 aneurysms. Majority of aneurysms (246) were surgically clipped and 32 aneurysms underwent ligation with silk suture. The total mortality was 6% and good outcome was seen in the majority of cases. The final outcome was dependent on the presenting grade and not on method used.

## Conclusions

Surgical clipping as well as ligation with silk suture offers an effective way of treating these lesions with minimal morbidity and mortality. In a developing country like India, ligation is a very practical and cost effective alternative to clipping for treatment of aneurysms.

## Learning Objectives

There are alternatives to standard clipping and endovascular coiling in the management of saccular aneurysms.

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