

# Early Surgery in Patients Suffering Poor Grade Aneurysmal Subarachnoid Hemorrhage: A Single Institution Experience

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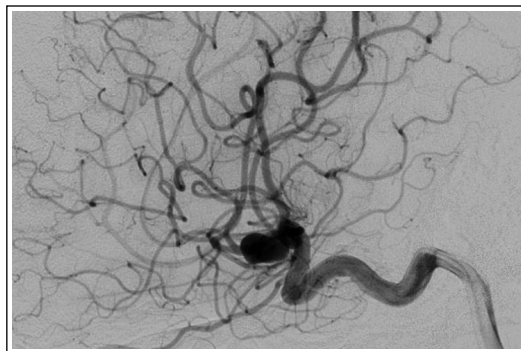


## Introduction

It is well known that rupture of an intracranial aneurysm constitutes the most common cause of spontaneous subarachnoid hemorrhage (sSAH). Poor grade sSAH patients are characterized by a high rate of morbidity and mortality. In our current cohort, we present our results regarding the outcome of poor grade aneurysmal sSAH patients.

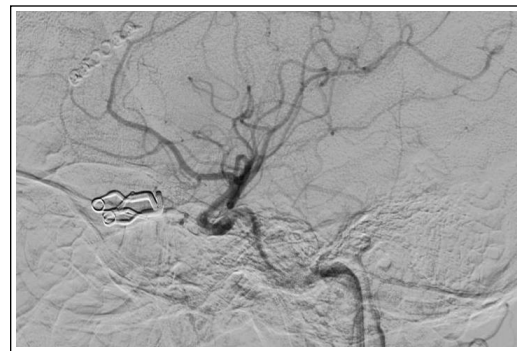
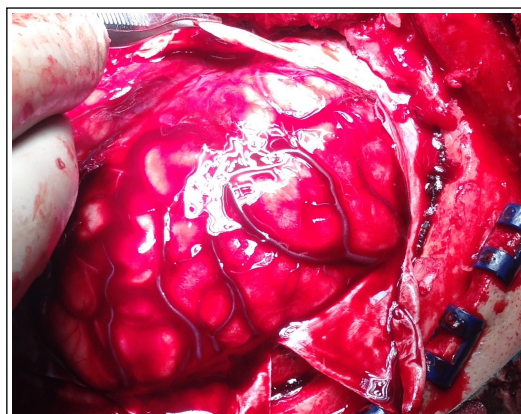
## Methods

Twenty two patients (15M and 7F), in a poor clinical grade according to the Hunt and Hess grading scale on admission, were included in our retrospective study (January 2009 to December 2015). The mean age was 52.6 years (range 39-74). All participants with CT-established diagnosis of SAH, underwent CT angiography (CTA) for identification of the source of hemorrhage. The severity of SAH was assessed by the Fisher grade classification scale. Digital subtraction angiography (DSA) was performed in a very limited number of patients (7 patients). All patients were treated surgically and their clinical outcome was evaluated by applying the Glasgow Outcome Scale (GOS). The mean follow-up time in our study was 10.1 months (range 0.13-60 months).



## Results

All of our patients were presented in a poor grade with Hunt and Hess grades of IV and V on admission (23% and 77%, respectively). The vast majority of our patients (68%) were operated on within 24h after the SAH onset. Fourteen out of sixteen (87.5%) treated within 24 h were Fisher grade 4. Overall, the 6 months postoperative outcome was favorable (GOS 4/5) for 6 patients (27.3%), while an unfavorable outcome occurred in 16 patients (72.7%). The mortality rate in our cohort was 50%. The most common cause of death was septicemia.



## Conclusions

Despite the belief that severe aSAH is a devastating disease, even poor grade patients may achieve favorable outcome with early operative intervention. A larger volume series is necessary for accurately outlining the prognosis of this entity, and also identifying those parameters which could predict good outcome.

## Learning Objectives

- Realize that even poor grade aneurysmal sSAH patients may achieve favorable outcomes
- Early operative intervention is necessary for that
- It is necessary to identify parameters that could predict good outcome

## References

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