

CLINICAL CHARACTERISTICS OF SPONTANEOUSLY RUPTURED ANEURYSMAL SUBARACHNOID HAEMORRHAGE

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Background: Clinical characteristics of aneurysmal subarachnoid haemorrhage may vary according to the site of aneurysm. Location of aneurysm also has a large impact on the possible complications & ultimate outcome. This study will be targeted to investigate whether any difference in clinical presentation of anterior & posterior circulation aneurysmal SAH. The Aim of the study was observe the clinical characteristics of spontaneously ruptured aneurysmal subarachnoid hemorrhage. **Methods:** This is a cross-sectional study that will be performed on hospitalized SAH patients at the Department of Neurology, NINS. During study period, Ethical approval will be obtained from the Institutional Review Committee of the institution. Patients will be included in the study if the diagnosis of SAH will be confirmed on CT brain, they had a CTA negative for any abnormality and proceeded to catheter angiography (DSA) in selected cases. Those with negative CT brain will be excluded from this study. Patients with a relevant history of trauma will be also excluded. The data were collected using individual case record forms and analyzed using SPSS 25. **Results:** The study population had a mean age of 53.60/ $\pm$ 12.12 years, indicating a predominantly middle-aged to elderly cohort, with a slight female predominance (51.4%). Hypertension (55.2%) and diabetes mellitus (20.0%) were the most common comorbidities. Headache (85.7%) and nausea/vomiting (84.8%) were the most frequent presenting symptoms, characteristic of subarachnoid hemorrhage (SAH), while unconsciousness was reported in 41.9% of cases. Anterior circulation aneurysms were more frequently associated with headache ($p = 0.03$), whereas unconsciousness was significantly more common in posterior aneurysms ($p = 0.01$). Clinical grading revealed that Grade 2 was predominant in anterior cases ($p = 0.01$), while Grade 3 was more frequent in posterior cases ($p = 0.02$), indicating a trend toward more severe presentations in posterior circulation SAH. **Conclusion:** In conclusion, this study highlights distinct clinical differences between anterior and posterior circulation aneurysms in patients with subarachnoid hemorrhage. While headache and nausea/vomiting were common across both groups, posterior circulation aneurysms were associated with a higher incidence of unconsciousness and more severe clinical grades, as reflected by the Hunt and Hess scale. These findings underscore the need for heightened clinical vigilance and tailored management strategies for posterior aneurysms, given their tendency to present with more severe neurological impairment.

Keywords: Aneurysmal subarachnoid hemorrhage, Anterior vs posterior circulation, Clinical presentation

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