Aneurysmal subarachnoid hemorrhage (aSAH)

Aneurysmal subarachnoid hemorrhage algorithm

see Aneurysmal subarachnoid hemorrhage algorithm.

Classification

Aneurysmal subarachnoid hemorrhage classification

Miscellaneous facts about SAH

Subarachnoid hemorrhage (SAH) following aneurysm bleeding accounts for 6% to 8% of all cerebrovascular accidents.

The anterior communicating artery aneurysm cause aneurysmal subarachnoid hemorrhage, about 21.0%–25.5% of percent of spontaneous subarachnoid hemorrhage \(^1\) \(^2\) \(^3\).

Peak age for aneurysmal subarachnoid hemorrhage aSAH is 55-60 years, about 20% of cases occur between ages 15-45 yrs.

30% of aSAHs occurs during sleep

50% of patients with aneurysms have warning symptoms, usually 6-20 days before SAH

headache is lateralized in 30%, most to the side of the aneurysm.

soft evidence suggests that rupture incidence is higher in spring and autumn

patients > 70 yrs age have a higher proportion with a severe neurologic grade.

Epidemiology

see Aneurysmal subarachnoid hemorrhage epidemiology.

Risk factors

see Aneurysmal subarachnoid hemorrhage risk factors.
Meteorological influence

The inherent variability in the incidence and presentation of ruptured cerebral aneurysms has been investigated in association with seasonality, circadian rhythm, lunar cycle, and climate factors.

Rosenbaum et al., aimed to identify an association between solar activity (solar flux and sunspots) and the incidence of aneurysmal SAH, all of which appear to behave in periodic fashions over long time periods. The Nationwide Inpatient Sample (NIS) provided longitudinal, retrospective data on patients hospitalized with SAH in the United States, from 1988 to 2010, who underwent aneurysmal clipping or coiling. Solar activity and SAH incidence data were modeled with the cosinor methodology and a 10-year periodic cycle length. The NIS database contained 32,281 matching hospitalizations from 1988 to 2010. The acrophase (time point in the cycle of highest amplitude) for solar flux and for sunspots were coincident. The acrophase for aneurysmal SAH incidence was out of phase with solar activity determined by non-overlapping 95% confidence intervals (CIs). Aneurysmal SAH incidence peaks appear to be delayed behind solar activity peaks by 64 months (95% CI; 56-73 months) when using a modeled 10-year periodic cycle. Solar activity (solar flux and sunspots) appears to be associated with the incidence of aneurysmal SAH. As solar activity reaches a relative maximum, the incidence of aneurysmal SAH reaches a relative minimum. These observations may help identify future trends in aneurysmal SAH on a population basis. 4)

By using high-quality meteorological data analyzed with a sophisticated and robust statistical method no clearly identifiable meteorological influence for the SAH events considered can be found. Further studies on the influence of the investigated parameters on SAH incidence seem redundant 5).

Pathophysiology

Aneurysmal subarachnoid hemorrhage pathophysiology

Clinical features

see Subarachnoid hemorrhage clinical features

Diagnosis

see Subarachnoid hemorrhage diagnosis

Outcome

see Aneurysmal subarachnoid hemorrhage outcome
Intracerebral hematoma and aneurysmal subarachnoid hemorrhage

see Intracerebral hematoma and aneurysmal subarachnoid hemorrhage

Complications

see Aneurysmal subarachnoid hemorrhage complications.

Treatment

see Aneurysmal subarachnoid hemorrhage treatment.

Anticonvulsant in aneurysmal subarachnoid hemorrhage

Anticonvulsant in aneurysmal subarachnoid hemorrhage

Croatia

Evidence based information on the epidemiology, risk factors and prognosis, as well as recommendations on diagnostic work up, monitoring and management are provided, with regard to treatment possibilities in Croatia in the article of Solter et al. 6) 7).

Spain

There is high variability in the election of treatment modality among centres in Spain. Endovascular treatment allows more patients to have their aneurysm treated. Guideline adherence is moderate 8).

Guidelines

see Aneurysmal Subarachnoid Hemorrhage Guidelines.

Case series

Aneurysmal subarachnoid hemorrhage case series

1)


