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## O-VAS-08 - Weather changes relationship with the presentation of subarachnoid hemorrhage

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### Resumen

**Introduction:** Subarachnoid hemorrhage (SAH) is a high mortality disease that most of the time is related to intrinsic factors. However, it can also affect extrinsic factors such as weather variables. There are several controversies in the studies conducted so far.

**Objectives:** To investigate the relationship of weather changes, either seasonal variations or changes in pressure, humidity or temperature with SAH cases.

**Material and methods:** It is an observational, descriptive, longitudinal and retrospective study of cases of aneurysmal SAH admitted to the neurosurgery unit of the University Hospital Puerta del Mar (which covers the province of Cadiz, Ceuta and Gibraltar) during the period between January 2009 and December 2014. A record was made of patient demographics (age, gender), medical history (arterial hypertension (AHT), diabetes mellitus, dyslipidemia and smoking), place of residence, the existence of aneurysm and date of the SAH, taking into account the season in which it occurs. We also recorded the average values of humidity, temperature and daily atmospheric pressure, throughout the study period.

**Results:** The analysis of the 206 cases showed a higher rate of aneurysmal SAH in the female gender, being hypertension the main risk factor associated. No significant differences between days without bleeding, relative to atmospheric pressure, temperature and relative humidity measured were demonstrated. A slight increase in cases was observed during the winter.

**Conclusions:** In our area the changes in air pressure, temperature and relative humidity are not associated with an increased incidence of SAH. No clear seasonal trend was observed.