Aneurysmal subarachnoid hemorrhage length of stay

The clinical course of subarachnoid hemorrhage generates high health economics expenses.

Ridwan et al. highlighted possible cost drivers for in-hospital care expenses for the first year. Furthermore, results are compared with ischemic stroke treatment.

One hundred and one patients with aneurysmal subarachnoid hemorrhage treated in the University Hospital Bonn, from 2007 through 2009 were included. The Hunt and Hess (HH) scale, World Federation of Neurosurgical Societies (WFNS) scale, Fisher Scale, and further outcome-relevant data were recorded. Expenses were calculated using the German fixed case rate classification system consisting of Diagnosis-Related Groups (DRG) and the Operation and Procedure catalog (OPS). Overall acute length of stay (LOS) and LOS on the intensive care unit (ICU) were separately evaluated. Expenses were compared with formerly published first-year costs of ischemic stroke.

Fifty-four percent of the patients (median age 52 years, 69% females) received coiling and 46% clipping. Acute in-hospital treatment accounted for 82% of total in-hospital expenses, while consequential in-hospital treatment accounted only for 18%. Altogether, the total first-year in-hospital expenses for all patients were as high as €2,650,002, resulting in average SAH in-hospital treatment expenses of €26,238 per patient for the first year. Poor clinical condition on admission and longer stay in ICU are the main cost-driving factors. The impact of the aneurysm treatment method is debatable. Only a poor HH grade and longer ICU stay are independent cost-driving factors. SAH treatment expenses are far higher than treatment costs for ischemic stroke in the literature (€6,731 for first-year inpatient and €3,287 for outpatient treatment).

Clinical condition and length of stay (LOS) determine in-hospital expenses after subarachnoid hemorrhage. Aneurysmal subarachnoid hemorrhage prevalently results in a relevant economic impact on the health system exceeding formerly published treatment expenses for ischemic stroke [1].

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Ridwan S, Urbach H, Greschus S, Hagen JV, Esche J, Boström A. Health Economic Aspects of Aneurysmal Subarachnoid Hemorrhage: Factors Determining First Year In-Hospital Treatment Expenses. J Neurol Surg A Cent Eur Neurosurg. 2021 Jan 24. doi: 10.1055/s-0040-1720982. Epub ahead of print. PMID: 33486751.