

at last follow-up, functional outcome, or neurologic complications.

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IMPACT OF HOSPITAL-ACQUIRED COMPLICATIONS IN LONG-TERM CLINICAL OUTCOMES AFTER SUBARACHNOID HEMORRHAGE

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Objective Patients with subarachnoid hemorrhage (SAH) usually have prolonged hospitalizations due to the need to closely monitor their neurological status. Therefore, these patients have higher risk of experiencing hospital-acquired complications (HACs), which can complicate their clinical course and recovery. However, there is no evidence on the impact of HACs of long-term clinical outcomes. We aimed to identify if HACs are independent risk factors for poor clinical outcomes at 12 to 18 months of follow-up.

Methods Retrospective analysis of 323 patients with SAH diagnosis from 2013 until June 2018. We collected patient-related factors (age, sex, BMI, ethnicity), comorbidities (hypertension, smoke status, diabetes, coronary heart diseases, prothrombotic diseases and hypercholesterolemia), clinical variables (Hunt-Hess grade, modified Fisher grade, treatment, delayed cerebral ischemia), aneurysm characteristics (location, size) and HACs (pneumonia, DVT, ITU, EVD infections, sepsis, hyponatremia and acute respiratory distress syndrome). Poor outcomes were defined as mRS ≥ 3 .

Results 204 patients were included in the primary analysis. 82 (40.2%) experienced one or more HACs during their hospital course. Patients that developed HACs have significantly increased ICU (12.1 ± 6.6 vs 24.3 ± 23.6 , $p < 0.001$) and

hospital (18.7 ± 14.2 vs 35.3 ± 26.3 , $p < 0.001$) length of stays. Moreover, patients with HACs had significant higher rates of delayed cerebral ischemia, non-routine discharge and poor outcomes at 90 days. 177 patients had complete follow-ups at 12 to 18 months, HACs were independent risk factors for poor functional outcomes at 12 to 18 months after adjusting for demographic, comorbidities and clinical variables [OR=3.205, 95% CI 1.231–8.347, $p < 0.017$].

Conclusions HACs put patients at a higher risk of sustaining poor clinical outcomes 12 to 18 months after a SAH. Furthermore, HACs are significantly related with the occurrence of DCI, with non-routine discharge and 90-day poor functional outcomes.

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MID-TERM RESULTS OF ANEURYSM TREATMENT WITH THE NEW SURPASS EVOLVE FLOW DIVERTER: A MULTICENTER EXPERIENCE

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Purpose Flow diverters have become a safe and well-accepted treatment option for intracranial aneurysms of most sizes in the anterior and posterior circulation. Surpass Evolve (SE, Stryker Neurovascular, Kalamazoo, Michigan, USA) is a new flow diverter that is available in large diameters (2.5–5 mm) and long lengths (12–40 mm), with high radial force and a high in-vitro flow diverting effect irrespective of the parent vessel tortuosity. This is secondary to a consistency in mesh density (15–30 pores/mm²) and a high number of wires (48–64, depending on the device length). SE can be deployed through an 0.027" microcatheter, allowing easy navigation within tortuous anatomies. We describe device characteristics and mid-term results in the first patients treated with the SE for intracranial aneurysms.

Materials and Methods We included in this report all patients that underwent aneurysm embolization with the SE at two different institutions. Patients' data was prospectively collected in two databases and reviewed retrospectively. We included adult