

Aim of Study Explored relationship between histopathological changes and angiographic evolution over time in experimental aneurysms in rabbits treated with WEB.

Methods Quantitative WSM was assessed using flat-panel CT (FPCT) during follow-up by calculating height and width ratio (HR, WR), defined as the ratio between either measurement at an index time point and the measurement immediately after WEB implantation. HR and WR were evaluated with angiographic and histopathological assessments of aneurysm healing.

Results Altogether, at least 5% of HR and WR variations were observed in 37/40 (92,5%) and 28/40 (70%) WEB devices, respectively, at the time of final assessment. Histopathological analysis revealed a significant association between WR and aneurysm healing and fibrosis 1 month following aneurysm treatment (both $p < 0.05$). (Figure 1)

Conclusion Using longitudinal FPCT assessment, we observed that WSM affects both the height and width of WEB device. No significant association was found between WSM and aneurysm occlusion status. Although presumably a multifactorial phenomenon, the histopathological analysis highlighted a significant association between width variations, aneurysm healing and fibrosis in the first month following aneurysm treatment.

REFERENCE

1. Janot K, Boulouis G, Forestier G, et al. WEB shape modifications: angiography-histopathology correlations in rabbits. *J NeuroIntervent Surg.* 2023;jnis-2023-020193.

Disclosure of Interest no.

P008

BIHEMISPHERIC INVOLVEMENT IS ASSOCIATED WITH UNFAVORABLE FUNCTIONAL OUTCOME AFTER ENDOVASCULAR TREATMENT OF CEREBRAL VASOSPASM FOLLOWING ANEURYSMAL SUBARACHNOID HEMORRHAGE

¹Christian Thaler, ²Bogdana Tokareva, ³Rabea Wentz, ⁴Christian Heitkamp, ²Matthias Bechstein, ²Noel van Horn, ²Lasse Dühsen, ²Hanno S Meyer, ²Maxim Bester, ²Jens Fiehler, ²Lukas Meyer. ¹University Medical Center Hamburg-Eppendorf, Hamburg, Germany; ²University Medical Center Hamburg-Eppendorf; ³Marienkrankehaus Hamburg; ⁴University Medical Center Hamburg-Eppendorf, Germany

10.1136/jnis-2024-ESMINT.45

Introduction Cerebral vasospasms (CV) remain a significant predictor of poor outcome after aneurysmal subarachnoid hemorrhage (aSAH).

Aim of Study This study aims to analyze patients' individual risk factors, intensity and extend of CV associated with poor functional outcome after aSAH.

Methods We conducted a retrospective study of consecutive patients with aSAH admitted at a tertiary stroke center between January 2016 and December 2022. Patients with medically refractory CV necessitating at least one endovascular intervention were analyzed. Primary endpoint was defined as functional outcome defined as modified Rankin Scale (mRS) scores after 6 months. Secondary endpoint was the occurrence of cerebral infarctions following CV.

Results Overall, 138 patients received EVT due to CV, including 322 treatments with 78 patients receiving more than one EVT. In 65.2% (90) patients developed CV in both

hemispheres, in 16.7% (23) CV occurred involved the posterior circulation, and in 10.1% (14) PTA was performed. Multivariable logistic regression analysis showed an association of older age (adjusted odds ratio [aOR], 1.05, 95% CI, 1.0-1.1), higher Hunt&Hess grades (aOR, 2.12, 95% CI, 1.38-3.24), the occurrence of rebleeding (aOR, 4.97, 95% CI, 1.0-24.65), and bihemispheric vasospasm (aOR, 4.05, 95% CI, 1.4-11.72), with unfavorable outcome (mRS 3-6). Further analysis showed that older higher age (aOR, 1.07, 95% CI, 1.03-1.13) was associated with an increased risk for developing vasospasm-associated infarctions.

Conclusion Our results indicate an association between bihemispheric CV and poor functional outcome after aSAH. This finding supports a more aggressive treatment strategy in patients developing bihemispheric vasospasm to prevent unfavorable disease courses.

Disclosure of Interest no.

P009

PRASUGREL SINGLE ANTIPLATELET THERAPY VERSUS ASPIRIN AND CLOPIDOGREL DUAL ANTIPLATELET THERAPY FOR FLOW DIVERTER TREATMENT FOR CEREBRAL ANEURYSMS: A RETROSPECTIVE MULTICENTER STUDY

Sophia Hohenstatt, Dominik Vollherbst, Markus Moehlenbruch. *Neuroradiology, University Hospital Heidelberg, Heidelberg, Germany*

10.1136/jnis-2024-ESMINT.46

Introduction A single antiplatelet therapy (SAPT) might be advantageous in determined clinical scenarios after flow diverter treatment of cerebral aneurysms.

Aim of Study To evaluate the efficacy and safety of prasugrel SAPT versus aspirin and clopidogrel dual antiplatelet therapy (DAPT).

Methods We performed a post hoc analysis of 4 retrospective multicenter studies including ruptured and unruptured aneurysms treated with flow diversion using either prasugrel SAPT or DAPT. Primary end points were the occurrence of thromboembolic complications (TEC) and complete aneurysm occlusion at the latest radiologic follow-up (mean, 18 months). Dichotomized comparisons of outcomes were performed between SAPT and DAPT. Additionally, the influence of various patient- and aneurysm-related variables on the occurrence of TEC was investigated using multivariable backward logistic regression.

Results 222 patients with 251 aneurysms were included, 90 (40.5%) in the SAPT and 132 (59.5%) in the DAPT group. TEC occurred in 6 patients (6.6%) of the SAPT and in 12 patients (9.0%) of the DAPT group ($P = .62$; OR, 0.712; 95% CI, 0.260-1.930). The primary treatment efficacy end point was reached in 82 patients (80.4%) of the SAPT and in 115 patients (78.2%) of the DAPT group ($P = .752$; OR, 1.141; 95% CI, 0.599-2.101). Logistic regression showed that non-surface-modified flow diverters ($P = .014$) and fusiform aneurysm morphology ($P = .004$) significantly increased the probability of TEC.

Conclusion Prasugrel SAPT after flow diverter treatment may be as safe and effective as DAPT and could, therefore, be a valid alternative in selected patients.

Disclosure of Interest no.