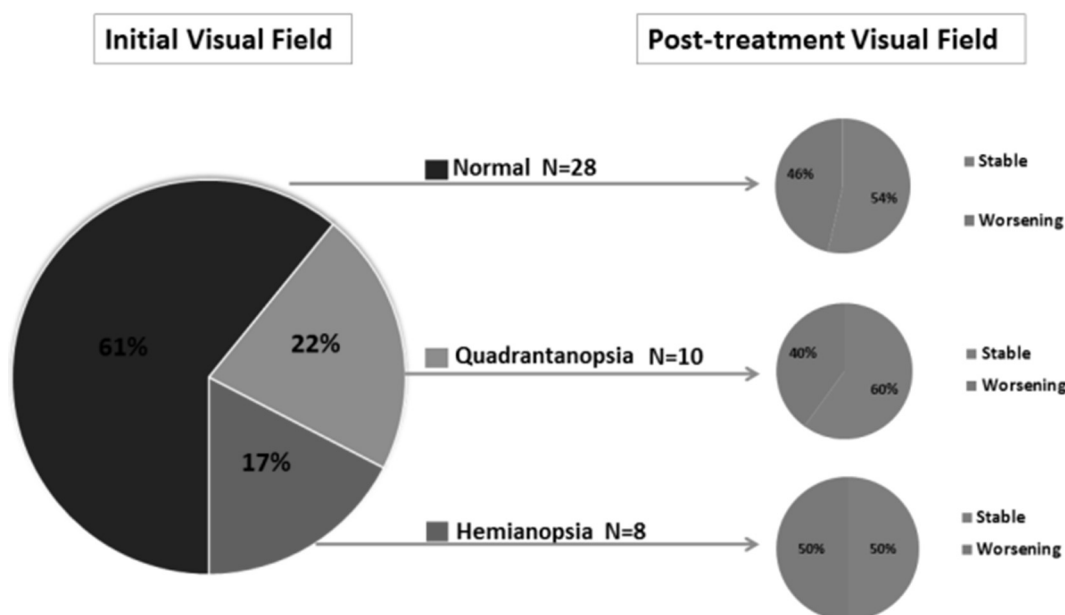


Unruptured AVMs



Abstract O-020 Figure 2

the complication rate (especially regarding visual functions) remains non-negligible.

Disclosures S. Smajda: None. G. Ciccio': None. R. Fahed: None. T. Robert: None. R. Blanc: None. M. Piotin: None.

O-021

SAFETY AND EFFICACY OF TRANSVENOUS EMBOLIZATION OF RUPTURED BRAIN ARTERIOVENOUS MALFORMATIONS AS A LAST RESORT: A PROSPECTIVE SINGLE ARM STUDY

Y He*, W Bai, T Li, B Xu. *Cerebrovascular Division of Interventional Center, Henan Provincial People's Hospital, Zhengzhou, China*

10.1136/neurintsurg-2019-SNIS.21

Purpose Due to limited data of 69 cases reported up to now, the transvenous embolization for brain AVMs is still considered an unproven salvage therapy. Our aim was to explore the safety and curability of transvenous embolization treatment.

Materials and methods Between November 2016 and November 2018, 21 consecutive patients with ruptured brain AVMs who underwent transvenous embolization were prospectively followed. The Spetzler-Martin grade was: grade I and II (33.3%, n = 7), grade III (52.4%, n = 11), and grade IV and V (14.3%, n = 3). Safety was evaluated by observing the procedure-related complications occurred within 1 month, and the primary outcome of efficacy was complete angiographic obliteration of the AVMs nidus on the 6-month follow-up angiography. Functional outcome was established using the mRS.

Results The procedure was technically feasible in 19 of 21 (90.5%) cases. Procedure-related complications were 6 (28.6%), including 5 hemorrhages and 1 infarction, which caused 1 (4.8%) disability and 1 (4.8%) death. Sixteen (84.2%) patients had immediate angiographic obliteration in

technically feasible patients. The median angiographic follow-up for 14 surviving patients was 5.5 (range, 3 – 15) months, and in 13 (92.9%) patients complete obliteration of the nidus conformed. Among them, 1 patient in whom immediate angiographic obliteration was not achieved showed spontaneous obliteration at the 13-month follow-up. There were no recurrences during the follow-up period. The good functional outcome (mRS \leq 2) ratios improved from 57.1% (12/21) at preoperation, to 66.7% (14/21) at 1-month follow-up and 100% (19/19) at 6-month follow-up respectively.

Conclusion This prospective study demonstrates that transvenous embolization for brain AVMs may have a high rate of complete angiographic obliteration but also a high rate of procedure-related morbidity and mortality.

Disclosures Y. He: 1; C; National Natural Science Foundation of China (No. 81601583) and the Scientific and Technological Project (No. 2018020424) and Aboard Research Project (2016054) of Henan Provincial Health Commission. W. Bai: None. T. Li: None. B. Xu: None.

O-022

CFD SIMULATION FOR CEREBRAL ARTERY WITH PATIENT-SPECIFIC INFLOW CONDITIONS EXTRACTED FROM 4D-DSA

¹H Ohno*, ²H Takao, ²T Suzuki, ¹S Fujimura, ¹Y Uchiyama, ¹K Tanaka, ¹T Okudaira, ¹T Ishii, ³K Otani, ⁴T Ishibashi, ⁵K Fukudome, ⁵M Yamamoto, ⁴Y Murayama. ¹Graduate School of Mechanical Engineering, Tokyo University of Science, Tokyo, Japan; ²Department of Innovation for Medical Information Technology, Jikei University School of Medicine, Tokyo, Japan; ³Siemens Healthcare K.K., Tokyo, Japan; ⁴Department of Neurosurgery, Jikei University School of Medicine, Tokyo, Japan; ⁵Department of Mechanical Engineering, Tokyo University of Science, Tokyo, Japan

10.1136/neurintsurg-2019-SNIS.22

Introduction Hemodynamics is believed to be related to the pathology of cerebral aneurysms such as rupture and growth, so those phenomena have been investigated using