P33 FLOW-DIVERTER FOR MCA ANEURYSMS: IS AN EFFECTIVE AND SAFE OPTION?

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Aim In this study, we retrospectively evaluated the effectiveness and the , safety, and follow-up results of non-surgical MCA aneurysms treated byvia implantation of a flow diverter device (FDD).

Methods Clinical, procedural and follow-up data were analyzed in order to evaluate the safety and effectiveness of the treatment with the FDD in non-surgical MCA aneurysms. Safety was assessed recording (intra-procedural, peri-procedural and delayed) complications in order to determine the morbidity and mortality rates. Functional outcome was evaluated with mMRS prior and after the endovascular procedure. To assess the efficacy, midterm and, long-term and very long-term clinical, angiographic and cross-sectional imaging follow-up were recorded.

Results 47 patients (21 males; 26 females) with MCA aneurysm were treated with FDD. 7 were ruptured. 21 aneurysms were saccular, 19 dissecting, 3 fusiform, 2 blood blister-like and 2 were pseudo aneurysm/iatrogenic (4,3%). The overall mortality rate was 2,7% (1/47) and the overall morbidity rate was 8,6% (4/47). Midterm neuroimaging follow-up showed the complete or nearly complete occlusion of the aneurysm in 63% cases, which became 913% at the end of follow-up.

Conclusions FDD is a safe and effective tool that can be used in the treatment of complex MCA aneurysms, where conventional neurosurgical treatments can be challenging or ineffective.

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Do you have any conflict of interest to declare?: No

P34 ARTIFICIAL INTELLIGENCE IN STROKE NETWORKING: EARLY EXPERIENCE IN BUILDING NETWORKS OF CARE

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Introduction Automated imaging systems and artificial intelligence algorithms have facilitated rapid triage of thrombectomy patients. While the initial focus has been on rapid triage to thrombectomy, there are also potential impacts on overall stroke care across hospital networks.

Aim of the Study The aim of this study was to evaluate how Viz.ai and its messaging element were used to provide triaging of all stroke patients across a network of hospitals.

Methods We analyzed all Viz.ai CT/CTA scans uploaded from our network hospitals from 09/2020 through 03/2022. As standard work, each CT/CTA is personally reviewed by a faculty neurointerventionalist at our 'hub' Comprehensive Stroke Center. The network included four 'spoke'hospitals, three of which were Primary Stroke Centers. Each scan is reviewed, and comments are made in the messaging app of Viz, which include transfer triage and recommendations for care.

Results 1259 scans were reviewed; only 100 patients (8%) were recommended for transfer. 37 were transferred for thrombectomy; 63 were transferred for non-thrombectomy higher level of care (hemorrhage, ischemia, moyamoya, dissection, AVM, CC fistula). In 99 cases (8%), recommendations for care were provided to the spoke hospital providers by the NIR faculty, and the patients remained at the spoke hospitals.

Conclusions While Viz. ai is intended to identify and triage thrombectomy patients, the messaging app provides an opportunity to collaborate between institutions; care recommendations without transfer were provided in just as many cases as thrombectomy. In addition, the majority of stroke cases did not require transfer.

Do you have any conflict of interest to declare?: No

P35 BENEFIT OF ADVANCED 3D DSA AND MRI/CT FUSION IN NEUROVASCULAR PATHOLOGY

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Purpose Digital subtraction angiography provides excellent spatial and temporal resolution, however lacks the capability to depict adjacent brain parenchyma or spinal cord.

Material & methods A review of the institutional database was performed to identify patients in whom a new integrated fusion work-flow of cross-sectional imaging and 3D rotational angiography (3DRA) provided important diagnostic information and assisted in treatment planning.

Results In 5 presented cases, including two acutely ruptured brain arteriovenous malformation (AVM), small superficial brainstem AVM after radiosurgery, thalamic micro-aneurysm, spine AVM, fusion was crucial for diagnosis and influenced further therapy.

Conclusion Fusion of 3DRA and cross-sectional imaging may provide a deeper understanding of neurovascular disease. This seems crucial for planning, providing and most importantly minimizing complication rates of our therapy. Integrating image fusion in the neurointerventional work-flow is likely to have a major impact on the neurovascular field in the future.

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