Background To date, there is no medical treatment to prevent subsequent progression to rupture of intracranial aneurysms and to control rupture-followed complications to improve the clinical outcome after SAH. We explored the role of Vitamin D (VitD3) status because of its known anti-inflammatory effect as a potential treatment.

Methods 25-vitaminD3 levels tested between 2017–2021 at admission and data of SAH patients with ruptured aneurysms were analyzed, prospectively. We correlated VitD3 status with size and number of ruptured aneurysms in admitted patients as well as with the rate of cerebral vasospasm and clinical outcome 6 months after aSAH.

Results A total of 103 patients were included in this cohort. We determined a significant association of sufficient VitD level with smaller size of aneurysms (<5mm) at the time of rupture (p<0,001; OR 7) as well as with lower number of detected aneurysms (=1) (p<0,001; OR 7). Sufficient VitD level at hemorrhage onset had a lower risk for cerebral vasospasm (p<0,05; OR 3,5), specially for severe vasospasm (p<0,05; OR 15) and delayed cerebral infarction (p<0,01; OR 4,2). In addition, we observed a higher chance for favorable outcome (mRS 0–2) (p<0,01; OR 4,6) in case of patients with normal VitD plasma level at admission. In our multivariate analysis, sufficient VitD level (>30 ng/ml) was an significant independent factor affecting aneurysm size, number of aneurysm, developing cerebral vasospasm and the clinical outcome 6 month after SAH.

Conclusion VitD3 attenuates subsequent progression and aneurysm rupture affecting size and number of aneurysms. Furthermore, sufficient Vitamin D level decreases the rate of post SAH complications and supports the chance for favorable outcome. However, VitD-administration should be tested as optional treatment in management of patients with unruptured and ruptured aneurysms.


E-258

ROLE OF VITAMIN D IN CLINICAL COURSE OF INTRACRANIAL ANEURYSMS – FROM RUPTURE TO RECOVERY

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within a neurosurgery department to uncover undocumented patient variables which negatively affect LOS quality metrics.

Methods Vizient software was used to analyze DRGs and expected LOS for 53 SAH patients between August 2020 and August 2021. Chart reviews for all procedures were conducted to discover variables missed by the documenting provider or coder.

Results Chart reviews of 53 SAH cases from August 2020 to August 2021 revealed at least one new variable coding for LOS in 49 cases (92%). An average of 3 (2.89) new variables were found per chart (maximum of 8). Expected LOS, recalculated with undocumented variables, increased by an average of 6.46 days (maximum increase of 74.22 days). Most common variables missed were ventriculostomy (17), fluid & electrolyte disorders (15), obesity (14), and Medicaid status (11).

Conclusion Inadequate documentation causes omission of variables coded; in turn, leading to misrepresentation of the quality of patient care being provided. Efforts to guide providers to document their care accurately can improve their quality metrics such as LOS, mortality, and cost estimates.

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E-261 AN INSTITUTIONAL EXPERIENCE ADOPTING TRANSRADIAL CEREBRAL ANGIOGRAPHY

Transradial artery access in cerebral angiography has been widely adopted in cardiac angiography and is gaining popularity in cerebral angiography. We recently adopted this technique in our institutional cerebral angiography practice and sought to evaluate our experience.

Method We conducted a retrospective review of transradial diagnostic cerebral angiograms performed at our institution between 2020 and 2022 and compared procedural characteristics between transfemoral cerebral angiograms performed at our institution between June 2018 and 2022.

Results One hundred fifty-four transradial cerebral angiograms were identified and compared to 467 transfemoral cerebral angiograms. The mean ages of the transradial and transfemoral cohorts were 53.34 and 53.93, respectively. The mean fluoroscopy time in the transradial group was 24.9 ± 21.9 minutes compared to 22.7 ± 39.5 minutes in the transfemoral group, while the mean radiation dose was 495.64 mGy and 549.04 mGy for the radial and femoral groups, respectively. The mean recovery time for radial patients was 1 hour 42 minutes for radial patients and 2 hours 3 minutes for femoral patients. There were no significant differences between these procedural metrics.

Conclusion Transradial artery access for diagnostic cerebral angiography can be successfully adopted in a busy neurointerventional practice.


E-262 BENEFIT OF ADVANCED 3D DSA AND MRI/CT FUSION IN NEUROVASCULAR PATHOLOGY

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

Materials A review of the institutional database was performed to identify patients in whom a new fusion work-flow of cross-sectional imaging and 3D rotational angiography (3DRA)