Results There were 750 hospitalizations involving uIAD, while there were 215,069 involving IAs. uIADs represented 6.6 per million hospitalizations across 2016–2019. The average age of presentation was 55.2 years (SE: 1.63), while it was 64.6 (SE: 1.0; p <0.001). Females were represented among those with uIADs (White: -0.71, p=0.84; Black: -4.36, p=0.14; Hispanic: 3.26, p=0.068; Other: 1.81, p=0.40).

Conclusion The prevalence of uIADs among hospitalized patients is scarce, and only 2% of craniovascular dissection-related AIS is due to uIAD. Compared to IAs, patients were more likely younger and male, and uIAD more commonly led to acute ischemic stroke and motor deficits. The trend in age remained stable across the four years analyzed, while the proportion of females increased. There was no trend in the proportion of races among uIADs, however.

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E-191 INFLUENCE OF SOCIOECONOMIC FACTORS ON THE DEVELOPMENT OF POST-STROKE DEPRESSION IN ANEURYSMAL SUBARACHNOID HEMORRHAGE SURVIVORS


Introduction/Proposal The risk of developing depression based on the severity and location of injury and patient demographic factors is widely studied for ischemic stroke, but not well characterized for aneurysmal subarachnoid hemorrhage (aSAH) survivors. Furthermore, a direct relationship between socioeconomic factors and depression after aSAH has not been studied. The purpose of this study was to investigate the potential links between the development of depression and socioeconomic factors among survivors of aSAH.

Materials/Methods Data were retrospectively collected for 322 patients treated for aSAH at Harborview Medical Center (Seattle, WA) between 2014–2021. We excluded 133 patients due to inpatient mortality, previous history of depression, or previously prescribed psychotropic drugs. Demographic data and socioeconomic factors were collected (Table 1). Multivariate logistic regression analyses were used with a primary outcome, development of new depression after aSAH.

Abstract E-191 Figure 1 Receiver operating characteristic curve for the prediction of socioeconomic factors influencing the development of depression after aSAH

in the SRS only cohort. When comparing obliteration rates based on embolysate material, obliteration rates with Onyx +SRS were 42.1% and 50.0% in the non-Onyx embolysate + SRS cohort.

Conclusion Embolization of AVMs is a nuanced topic that relies heavily on the embolic material used and has evolved significantly over the decades. Previously trialed embolysates have included polyvinyl alcohol (PVA) particles, N-butyl-2-cyanoacrylate (NBCA), and NBCA with adjunctive platinum coils, however, all of these have been associated with conflicting effects on post-embolization radiosurgical outcomes. Recently, Onyx (ethylene vinyl-alcohol (EVOH) copolymer dissolved in dimethyl sulfoxide (DMSO) and suspended in micronized tantalum powder) has been increasingly used for the embolization of intracranial AVMs with increased success in regard to its ease of use from a technical standpoint and has been shown to perform similarly to other embolysate materials.

### Results

Of the 189 patients that met inclusion criteria, 31 (16%) patients developed a new depressive disorder after aSAH. The average age was 57 years, and 25 (81%) patients were female. We collected socioeconomic factors from 180 of these patients using 30 socioeconomic factors demonstrated reasonable predictive power, with an area under the curve score of 0.76. The mean predicted probability of developing depression in the subjects who did not develop depression (n=150) was 0.146 (SD=0.09), while the mean predicted probability among the cohort who did develop depression (n=30) was 0.25 (SD=0.12). A two-sample t-test between the predicted means of the two cohorts yielded a p-value of <0.001 and a t-statistic of 5.45. The most significant features in the logistic regression were female sex, employment at time of stroke, and a history of polysubstance abuse.

### Conclusion

The overall risk of developing a new depression disorder after aSAH was 16% in this retrospective study. The female sex was close to 4 times and substance use were six and half time more likely to develop new depressive symptoms; therefore, these risk factors should be considered when screening patients for depression after aSAH.

### Disclosures


### E-192 ASSOCIATION OF MYELOPEROXIDASE-DNA COMPLEXES AND HIGH MOBILITY GROUP BOX 1 PROTEIN WITH DELAYED CEREBRAL ISCHEMIA FOLLOWING ANEURYSMAL SUBARACHNOID HEMORRHAGE

High mobility group box 1 protein (HMGB1) serves as a key player in aseptic inflammation. Admission serum HMGB1 has been identified as a biomarker predictive of delayed cerebral ischemia following aneurysmal subarachnoid hemorrhage (aSAH). Released by leucocytes and platelets, HMGB1 induces neutrophils to release condensed chromatin and protein granules, termed neutrophil extracellular traps (NETs). Myeloperoxidase (MPO)-DNA complexes are one major NET biomarker and have been associated with arterial and venous thrombosis formation. The prevalence and role of MPO-DNA in aSAH remains to be determined.

A post-hoc analysis of a prospective, blinded, single-center biomarker observational study to investigate the role of HMGB1 was performed to explore if MPO-DNA complexes can be identified in aSAH patients, and if so, whether their titers are associated with DCI defined as new infarction on CT-scan not adjudicated to treatment. Secondary analysis was performed to explore association with clinical vasospasm. Admission and day 4 serum samples were analyzed for MPO-DNA complexes.

One hundred consecutive non-traumatic spontaneous SAH patients were enrolled and 83 revealed an aneurysm on angiography. Five patients (5/83) died <48h not allowing for DCI determination per definition. MPO-DNA complexes were can be identified in aSAH patients, and if so, whether their titers are associated with DCI defined as new infarction on CT-scan not adjudicated to treatment. Secondary analysis was performed to explore association with clinical vasospasm. Admission and day 4 serum samples were analyzed for MPO-DNA complexes.