Spontaneous Intracranial Hemorrhage (sICH) is the second most common type of stroke, accounting for 10-15%. Treatment has been an important area of study, given the natural history of an extremely high 30-day mortality rate of approximately 50%. However, despite new advances in treatment and a better characterization of sICH presentation, it is still not well understood how specific sex and etiological differences can influence sICH outcomes particularly in patients from the Appalachia-region of the United States. This is why we conducted a retrospective review of sICH cases at the University of Kentucky to evaluate how sICH etiologies and sex differences impact patient outcomes, which we define here as length of stay (LOS) in the hospital.

A retrospective review was performed of patients diagnosed with sICH at the University of Kentucky Medical Center between July 1, 2011 and March 1, 2018. Data collected included patient demographic information, comorbidities, length of stay and sICH characteristics. All statistical analyses were completed in SPSS Statistics.

1028 patients (544 men, 484 women) were included. On analysis, males with vasculopathy-related sICH stayed significantly longer than females with vasculopathy-related sICH (21 days vs. 7.4 days, t = 2.61, p = 0.0214).

CONCLUSIONS

The effect of etiological and sex differences on sICH patient outcomes – operationally defined as length of patient stay - requires further investigation. Male patients were hospitalized longer regardless of hemorrhage etiology. Additionally, male patients with vasculopathy-related hemorrhages (which includes vasculitis, moyamoya, and RCVS diagnoses) were hospitalized longer than women with vasculopathy-related hemorrhages. No statistically significant differences were observed with respect to other etiologies. Future investigation should look to further explore sex differences in vasculopathy vs. non-vasculopathy related hemorrhages, as there may be significant differences.