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E-085 Interventional and diagnostic neuroradiology fellowship education in the COVID-19 era

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Results We identified 111 patients between 2017 and 2020, 57 patients required a drip (43 NCR, 14 CLV), and 54 patients were managed with prn medications. Median NIHSS was higher in the drip group (18, IQR 13-21) vs. 15.5 (IQR 9-20), p value= 0.03. There was no significant difference in the rate of good clinical outcome defined as mRs of 0-2 or return to baseline (47.4 vs 61.1%, p value=0.18); rate of any HI (29.8% vs. 27.8%, p value=0.84) and sICH(5.3% vs 0%, p value=0.24) between the two groups (drip vs. no drip). When comparing the NCR to CLV groups, median ROBP was significantly shorter in the CLV group, 5min (IQR 0.75-7) vs. 17min (IQR 6-35), p value= 0.003; and total duration of time outside the pre-specified BP range was 37.5 min (IQR 19-120) vs. 118 min (57-227) consecutively, p value=0.045. HT rates (14.3% vs. 34.9%, p value=0.19), sICH rates (0 vs. 7%, p value=0.57), and rate of good clinical outcome (64.3% vs. 41.9%, p value=0.22) were similar between the two groups (CLV vs. NCR). In a Multivariate analysis, after adjusting for age, gender, IV tPA administration, drip used and time out of range; NIHSS (OR 0.8, CI 0.70-0.91, p =0.0008) and ROBP (OR=1.05, CI 1.0-1.1, p value=0.032) were independent predictors of good clinical outcome.

Conclusion CLV achieved faster ROBP time and better BP control after MT. Further prospective studies are needed.

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E-085 INTERVENTIONAL AND DIAGNOSTIC NEURORADIOLOGY FELLOWSHIP EDUCATION IN THE COVID-19 ERA

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Background and Purpose Given the relatively short duration and multiple facets of education, both interventional and diagnostic neuroradiology fellowships must be used efficiently. As hospital systems utilize resources to provide clinical care of patients with COVID-19, the overall number of elective neurointerventional procedures has been limited and the overall volume of diagnostic imaging has decreased. This article will evaluate and discuss the impact of procedural volumes between two academic centers, the impact on overall diagnostic neuroradiology imaging volume, and the rapid migration to online web-based education and research collaboration on both interventional and diagnostic neuroradiology fellowship experiences in the COVID-19 era.

Material and methods A retrospective review was conducted at two academic tertiary care hospitals to evaluate the change in overall elective and emergent neurointerventional case volume during the COVID-19 pandemic spanning from January 2020 - April 2020 and those volumes were compared to pre-COVID-19 case volume during January 2019-April 2019. A single center comparison of annual neurointerventional case numbers during 2019 and 2020 was performed with sub-analyses of case types. Annual diagnostic neuroradiology imaging volume was also evaluated for 2019 and 2020.

Results Both tertiary care academic medical centers experienced a statistically significant decrease in the number of

elective neurointerventional cases between March - April 2019 and March - April 2020. There was also a statistical different decrease in elective case volume during the fourth quarter of the 2020 academic year (April - June). A statistically significant decrease in case volume was not seen in the setting of thrombectomy for acute ischemic stroke. A statistically significant decrease in aneurysmal subarachnoid hemorrhage (aSAH) case volume was only seen at site #2. Between 2019 and 2020 there was a 32% drop in neuroradiology case volume during the fourth quarter of the 2020 academic year (April - June). Similar sizable decreases in diagnostic neuroradiology case volume were not appreciated in the remaining quarters of 2019 and 2020.

Conclusion Elective neurointerventional case numbers decreased as a result of the COVID-19 pandemic, particularly impacting the fourth quarter of the 2019-2020 academic year (April - June). Similarly, there was a sizable decrease in diagnostic neuroradiology case volume during this same time period. The decrease in procedural and diagnostic neuroradiology cases raised concerns regarding the educational experience for both diagnostic and neurointerventional radiology fellows. However, as a result of decreased case volume, fellowship education was rapidly augmented with a wide variety of online webinars, lectures, case conferences, and research collaborations.

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E-086 HUMAN INTRACEREBRAL HEMORRHAGE (ICH): EARLY HEMOLYSIS/ERYTHRYOLYSIS, IRON OVERLOAD, PERIHEMATOMAL EDEMA & SURVIVING WHITE MATTER; TRANSLATIONAL EVIDENCE FOR BRAIN TISSUE INJURY MARKERS ON MRI

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Objective Intracerebral Hemorrhage (ICH) in humans has not benefited from any translation from the bedside to the bedside in terms of established therapy or prognostic markers to guide treatment. ICH continues to inflict devastating neurological consequences. There is gathering evidence for some MRI parameters to reflect the amount of iron that leaches out of the hematoma to cause neurotoxicity. We examine the role of early erythrololysis within the hematoma as determined by MRI in ICH patients and its role in predicting iron overload to the surrounding tissues and its effects on the surrounding white matter based on MRI signal quantification.

Methods All patients recruited in the study since 2017 were included in the analysis. A total of 15 patients were prospectively enrolled into the NIH funded study since 2017 with informed consent and local IRB approval. The patients had MRIs at day 1 & 3, termed as early, day 14 designated as subacute period and day 30 as the late period. All MRIs were performed on a 3 Tesla MRI. Analysis and measurements were performed on T2* maps, relaxivity (R2*) maps, fractional anisotropy (FA) maps, and edema extent on T2 or FLAIR sequences. Individual measured parameter was then