for whom, consecutively, radial access was utilized during an endovascular procedure.

Results Included in our study sample are 11 total individuals found to have undergone neuroendovascular procedure, 7 of which are male and 4 are female. The mean age was 65.6 years (range from 35 to 91). 8 of the 12 patients observed required diagnostic cerebral angiograms, 2 patients required mechanical thrombectomy, and one patient underwent carotid stent placement and angioplasty for greater than 95% stenosis of the common carotid artery. The average hospital admission of this sample size was 5.2 days (range from 1 to 18). The mean National Institutes of Health Stroke Scale (NIHSS) on admission to the hospital was 5.45 (range from 0 to 28). 9 patients had scores of less than 3 on admission, while the remaining two patients has scores of 26 and 28. The mean length of procedure: for diagnostic cerebral angiograms was 25.5 minutes (range 15.2 to 56.3), for thrombectomy the mean time was 2 hours 2 minutes, and the time of stent and angioplasty was 1 hour 32 minutes. The mean fluoroscopic time for all patients was 15 minutes (range from 2.4 to 42.5). Of the 11 patients included in the sample size, 7 underwent procedures during which the treating physician was required to switch access unplanned, from femoral to radial. For 4 of the 11 patients, the treating physician planned to access the vasculature via radial access prior to the procedure. Of the 11 patients, only one experienced a complication in the form of an enlarging neck hematoma from the radial artery following percutaneous access for a cerebral angiogram. This event was treated the same day with radial artery and internal jugular repair during which hemostasis was achieved. On discharge, the mean NIHSS was 1.54 (range from 0 to 14). 10 of the 11 patients were discharged with an NIHSS of greater than or less than 2, only one patient was discharged with a score of 14, however, this patient was also admitted with pre-existing conditions which contributed to the higher than average access of other participants.

Conclusion In the experience of this single-center, the use of the transradial approach for neuroendovascular procedures seems to result in a relatively low rate of access complications and shifting access technique. Our results, while limited in the size of sample, contribute to the growing body of literature that sheds insight on the benefit of transradial access.

Disclosures M. Taqi: None.

E-081 SUSCEPTIBILITY – WEIGHTED IMAGING FINDINGS IN EXPERIMENTAL ACUTE ISCHEMIC STROKE MODEL

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Purpose Assessment of the ischemic penumbra is essential in the treatment of acute ischemic stroke. This work sought to study the hyperacute changes on ischemic regions on the susceptibility-weighted imaging (SWI) using a controlled large animal experimental middle cerebral artery (MCA) occlusion model.

Methods Eleven mongrel canines (20-30kg) underwent permanent endovascular occlusion of the M1 segment of MCA. Magnetic resonance imaging (MRI) was acquired on a 3T unit (Achieva, Philips Healthcare, Best, Netherlands) and included SWI and DTI starting one-hour post-MCA occlusion (MCAO). DSC perfusion MRI was subsequently acquired. Regions of

Abstract E-081 Figure 1 SWI signal (A) corresponds to elevated Tmax (B)

interest (ROIs) were manually drawn using the Image J software (National Institutes of Health, Bethesda, Maryland) corresponding to the MCA territory of each hemisphere based on previously reported canine anatomic studies. An independent samples t-test was conducted to compare the mean signal intensity on the MCA territory of the ischemic region and the contralateral non-ischemic region. The Mean diffusivity maps and DSC perfusion were compared to the SWI images.

Results Signal intensity was consistently lower in the ischemic territory compared to the non-ischemic territory. There was a significant difference in the mean signal intensity on the ischemic region ($M=1,517.51$, $SD=104.50$) vs. the non-ischemic region ($M=1,676.54$, $SD=81.91$); $P\text{-value}=0.0007$. Qualitatively, the images revealed larger cortical and medullary veins in the ischemic territory. Mean diffusivity images, cerebral blood volume, and cerebral blood flow maps did not consistently match the extent of the SWI signal loss, whereas MTT and Tmax maps consistently matched the area of signal loss on SWI.

Conclusion In the hyperacute stages of MCAO, SWI images display a consistent and significant signal drop relative to the unaffected side. This signal drop is suspected to result from the paramagnetic effect of deoxyhemoglobin and venodilation and thus an indirect means of visualizing tissue hypoxia.

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E-082 INITIAL EXPERIENCE WITH TRANSRADIAL ACCESS FOR NEUROUTERVENTIONS: FEASIBILITY AND SAFETY OF NEXT GENERATION .088" INTRACRANIAL GUIDE CATHETERS

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Background Several reports have demonstrated significant clinical benefits with transradial access compared to transfemoral access for endovascular procedures. Despite this, the transradial technique for neurointerventions is underutilized due to the anatomical complexities that may affect a successful procedure using conventional access catheter technology. The purpose of this single-center study was to evaluate the feasibility and safety of next generation large-bore intracranial guide catheters (0.088" inner diameter, 8Fr) using a transradial approach (TRA) in carefully selected patients undergoing neurointerventions.