institution to study the process of patient preparation in the angiography suite immediately prior to thrombectomy by analyzing video recordings of the angiography suite. We now seek to further characterize this process to identify factors that may be targets for improved process efficiency.

**Methods** Retrospective analysis of videos recorded during emergent mechanical thrombectomies was performed from the time of patient arrival to the angiography suite until procedure start. The tasks performed were recorded and time-stamped. Recorded tasks included items such as patient examination, intubation, vascular line placement, urinary catheter placement, groin prep, draping, and equipment table setup. The main outcome was the time of patient arrival in the angiography suite to skin puncture (angio-to-groin). The number of tasks performed, time to starting individual tasks, duration of individual tasks, and overall door-to-angio times were correlated with angio-to-groin times.

**Results** Data from 57 consecutive thrombectomy cases were analyzed. The included cases comprised 33 transfers from another institution, 12 emergency room presentations, and 12 inpatient strokes. There was no difference in mean angio-to-groin time between transfer, ED, and inpatient cases ($p = 0.2$). The mean door-to-angio time was 62.4 +/- 35.3 min, while the mean angio-to-groin time was 16.2 +/- 8.63 min.

There was no correlation between door-to-angio and angio-to-groin times. Cases that omitted at least one major task had significantly shorter angio-to-groin times ($p = 0.03$). Specifically, the omission of patient examination, intubation, and vascular line placement led to shorter angio-to-groin times ($p = 0.04$, $p = 0.02$, respectively). Shorter times to starting vascular line placement led to shorter angio-to-groin times ($p = 0.03$). Specificity of patient preparation in the angiography suite can help reduce overall door-to-recanalization times.

**Conclusions** This novel analysis of the patient preparation process during emergency thrombectomy identified several factors associated with overall angio-to-groin times, including the overall number of tasks performed, specific tasks such as patient examination, intubation, and vascular line placement, and the time to starting specific tasks, such as puncture site preparation, urinary catheter placement, and patient draping. Importantly, door-to-angio times do not correlate with angio-to-groin times, suggesting that a focus on improving the efficiency of patient preparation in the angiography suite can help reduce overall door-to-recanalization times.

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**E-234 A PREDICTIVE MODEL AND GUIDE TO PATIENT SELECTION IN VERTEBRAL OSTEOMYELITIS/DISCITIS**

B Hirshman, L Stone, A Wall, J Bravo, D Santiago-Dieppa, A Khaleesi. Neurological Surgery, UC San Diego, SAN DIEGO, CA

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**Introduction** Interventionalists are often requested to perform percutaneous biopsies for vertebral osteomyelitis/discitis. However, there have been few prior attempts to stratify patients for maximal technical success and no attempt to analyze the whether these results affect patient care. This work both develops a predictive model to stratify the likelihood of a technically successful biopsy (ie, a biopsy culture growing one or more organisms), and also identifies which biopsies will change clinical management (ie, changes in final diagnosis).
Methods A single institution retrospective chart review identified 78 patients undergoing 84 percutaneous aspiration/biopsy procedures for vertebral osteomyelitis/discitis over five years. A multivariate model was used to create a risk stratification scale to predict technically successful biopsies. The clinical course of the 63 patients referred to the infectious disease department were then analyzed for changes in management.

Results Multivariate analysis demonstrated that C-reactive protein > 1.5 and a percutaneously drainable collection were significantly associated with technically successful biopsy. A three point scale was created; the presence of zero, one, or both factors predicted a technically successful biopsy rate of 10%, 30%, and 70%, respectively. Of the subset of patients referred to the infectious disease department, 41% of biopsies were technically successful but only 17% lead to changes in management. Importantly, patients in the highest group were likely to be diagnosed by other means (blood cultures, urine cultures, etc) and therefore did not lead to independent changes in management. For each biopsy that lead to a management change, a total of six patients would wait a combined total of 23 hospital days. Additionally, biopsies performed >10 days from admission did not lead to changes in management.

Conclusion A two-factor score, consisting of C-reactive protein > 1.5 and the presence of a drainable fluid collection, can be used to predict the technical success of biopsies on patients with vertebral osteomyelitis/discitis. However, the results of such biopsies commonly do not change clinical management, and are associated with patient and health care costs. Careful discussion with infectious disease experts will be needed to minimize unnecessary risk for patients and to avoid procedures that may not change management.


E-235 AUTOMATED QUANTIFICATION OF ARCUATE, SUPERIOR LONGITUDINAL, AND INFERIOR LONGITUDINAL FASCICULI USING DIFFUSION TENSOR TRAJECTOGRAPHY CORRELATES WITH SPEECH FUNCTION IN POST-THROMBECTOMY STROKE PATIENTS

Background Acute ischemic stroke (AIS) with a large vessel occlusion (LVO) has the potential to have significant neurological deficits. Mechanical thrombectomy has been shown to improve outcomes of AIS with LVO. Unfortunately, not all patients improve following embolectomy. Here, we use automated software to analyze diffusion tensor imaging (DTI) of the superior longitudinal, arcuate, and inferior longitudinal fasciculi to help understand why some patients’ outcomes in speech are not as optimal.

Methods This is a retrospective study from June 2020 to June 2021 of AIS patients who underwent MT of the middle cerebral artery (MCA). Diffusion tensor images were acquired within 96 hours after MT. Proprietary software provided by Synaptive Medical© was utilized for the automated quantification of tractography to obtain tract counts of the arcuate, superior longitudinal, and inferior longitudinal fasciculi. We correlated these tract counts with Thrombolysis in Cerebral Infarction (TICI) scores, Western Aphasia Battery (WAB) test scores during the in-patient period, and modified Rankin scores (mRS) at discharge utilizing Spearman correlation analysis.

Results Out of the 20 patients studied, there were 10 left-MCA (50%) and 10 right-MCA (50%) LVO causing AIS. For