P-034 ASSESSMENT OF FEMALE AUTHORSHIP IN JOURNAL OF NEUROINTERVENTIONAL SURGERY (JNIS) PUBLICATIONS IN 2019–2020

[1]K Javed*, [2]D Altschul, [3]F Albuquerque, [4]J Hirsch. [1]*Neurosurgery, Montefiore Medical Center, Bronx, NY*; [2]*Neurointerventional Surgery, Neurosurgeons of New Jersey, Ridgewood, NJ*; [3]*Neurosurgery, Barrow Brain and Spine Group, Phoenix, AZ*; [4]*Neurointerventional Surgery, Massachusetts General Hospital, Boston, MA*

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Objective Female neurointerventionalists make up a minority of the neurointerventional work force. We sought to evaluate the contributions of this group to the Journal of Neurointerventional Surgery (JNIS) by identifying all papers published by female first authors or last authors in 2019 and 2020.

Methods The online issues of JNIS from January 2019 through December 2020 were reviewed. Data was collected on the number and types of articles published in each monthly issue. For each article, the gender of the first author and the last author were determined based on their names. If an author's name was ambiguous as to their gender, an online search of the individual's public LinkedIn or ResearchGate profile was performed. In rare cases, gender was deduced by evaluating different individuals with the same name. Analysis was performed by calculating the percentage of female involvement in the different types of articles published.

Results Over a 24-month period, there were 517 articles published and 104 (20%) had either a female first author, last author or both. Of those articles, 71 had a female first author and male last author. In contrast, there were 413 articles with male first and last authors. Having a female first and last author was found in only 8 articles over this period. The majority of the papers with female first or last author involvement were original research articles (n=84). There were only 14 case reports, and even fewer reviews (n=3). There was only one Editorial Commentary written by a female last author, and zero Editor's Columns. There was an increase number of papers published in JNIS between 2019 (n=254) and 2020 (n=263) as well as an increased trend in female first or last author involvement (17.3% in 2019 vs 22.8% in 2020). In 2020, 15 papers were published on special topics such as the Pandemic and Neurointervention. Of those, only two had a female first author and no female last author.

Conclusion There was an increase in the number of papers published by female authors in 2020 relative to 2019. The majority of papers with female involvement had a female first author. Most of the papers published by female authors were original research articles. Female neurointerventionalists were poorly represented as authors of invited commentaries, columns or special topics. As the percentage of females in neurointervention is growing, we would like to see their academic contributions to JNIS increase as well.

Disclosures K. Javed: None. **D. Altschul:** 5; C; Editor of JNIS. **F. Albuquerque:** 5; C; Editor-in-chief of JNIS. **J. Hirsch:** None.

P-035 INVESTIGATION OF A NOVEL POLY(PROPYLENE GLYCOL) MATERIAL FOR USE AS A PROTEIN-RESISTANT, BIO-INERT IMPLANT COATING

[1]W Merritt*, [1,2]A Ducruet, [1]T Becker. [1]*College of Engineering, Informatics, and Applied Sciences, Northern Arizona University, Flagstaff, AZ*; [2]*Barrow Neurological Institute, Phoenix, AZ*

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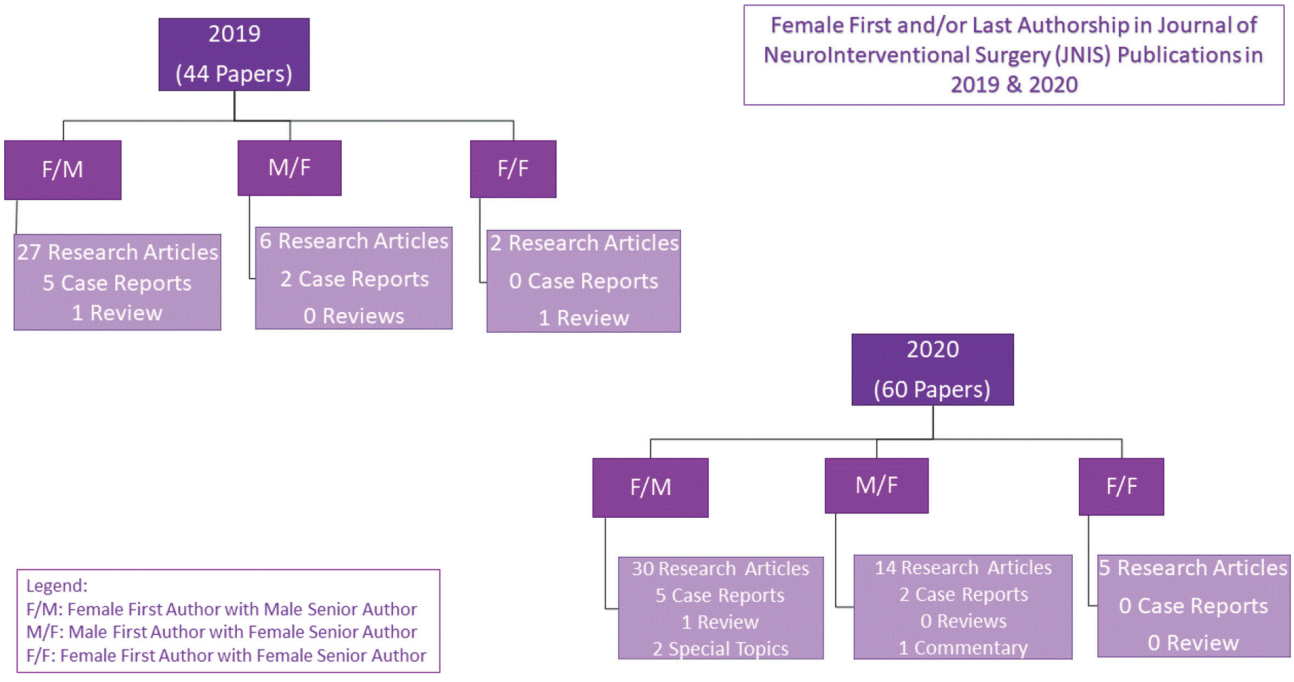
Introduction/Purpose A poly(propylene glycol)-based material (PPODA-QT) is currently being investigated as a liquid embolic for the treatment of intracranial aneurysms. Initial biocompatibility results have shown that PPODA-QTis uniquely bio-inert due to its ability to resist protein adsorption from contact with blood. Preliminary animal implant studies of PPODA-QT in rabbits (1- and 3-month survivals) and canines (6-month survival)have shown a lack of protein adsorption, lack of foreign body response, and minimal



Abstract P-034 Figrue 1

encapsulation around the material. A protein-resistant, liquid-to-solid curing material could have expanded use as anon-fouling, protein-resistant coating for a variety of metal-based implants.

Materials and Methods The resistance to protein adsorption is quantified via protein depletion from the blood, as well as through analysis of desorbed proteins from sample surfaces via Tween-20. Detection and quantification of proteins is performed via PPODA-QT samples (n=12) were prepared and cured in 4mm diameter cylindrical molds with a height of 10mm. PPODA-QT samples were each immersed in 1.5mL of heparinized rabbit whole blood within a 2mL polypropylene vial. Vials were placed on a shaker plate for15 minutes to ensure maximal interfacing between blood and the samples. With the majority of protein adsorption happening within seconds, 15 minutes is sufficient for protein adsorption. Positive controls(n=4) were created by preparing 4mm diameter and 10mm thick polyurethane cylinders and subjecting them to the same blood immersion procedure. Negative controls (n=4) were created by filling vials with blood and no sample to give a baseline level for protein adsorption onto the vials themselves. Proteins will be identified and quantified via label-free spectroscopy techniques.

Results PPODA-QT has been shown to exhibit exemplary protein-resistant properties as well as minimal encapsulation and inflammatory response when implanted while providing a relatively uniform surface for neointimal tissue growth across the device at the neck of the aneurysm. Comparison of PPODA-QT to the positive controls results in statistically significant reduction of protein depletion from blood samples. Verification of this result via analysis of desorbed proteins is underway.

Conclusion The protein-resistance of PPODA-QT as shown in this study makes it an interesting material candidate for a variety of surgical applications. A liquid-to-solid curing material with inherent protein-resistant properties could be utilized not only as a novel liquid embolic for treatment of intracranial aneurysms and AVMs, but could also be used as a non-fouling, bioinert coating for metallic implants such as stents, flow diverters, and coils.

Disclosures W. Merritt: 1; C; Northern Arizona University, Aneuvas Technologies, Inc.. 5; C; Aneuvas Technologies, Inc. **A. Ducruet:** 1; C; Northern Arizona University, Aneuvas Technologies, Inc. **T. Becker:** 1; C; Northern Arizona University, Aneuvas Technologies, Inc.. 4; C; Aneuvas Technologies, Inc.. 5; C; Aneuvas Technologies, Inc.

P-036 SENSITIVITY OF THE RACW SCORE IN THE DETECTION OF LARGE VESSEL OCCLUSIONS DURING WORKING AND NON-WORKING HOURS

[1]E Hitomi, [1]M Jumaa, [1]S Zaidi, [1]J Shawver, [1]A Korsnack, [1]A Castonguay, [1]R Burgess, [1]V Kung, [1,2]H Salahuddin*. [1]*Neurology, University of Toledo, Toledo, OH*; [2]*Neurology, Vascular Neurology of Southern California, Thousand Oaks, CA*

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Introduction Multiple studies have shown that faster treatment times for ischemic strokes result in improved clinical outcomes. Pre-hospital triage scores aim to identify large vessel occlusions in the field and allow earlier activation of stroke teams in the hospital.

Objective To compare the sensitivity of the pre-hospital Rapid Arterial oCclusion Evaluation (RACE) score for the detection of large vessel occlusions during working hours and non-working hours.

Methods We retrospectively reviewed all patients presenting with a RACE score of $\geq$ 5 to one comprehensive and one thrombectomy capable hospital between July 2015 and December 2019. Baseline demographics, time of hospital arrival, presenting NIHSS score, intravenous tPA and mechanical thrombectomy metrics, ninety day modified Rankin scores, discharge disposition, and final discharge diagnosis were recorded. Patients presenting between 7 AM to 6 PM during weekdays were considered to present during 'Working hours' whereas patients presenting between 6 PM - 7 AM on weekdays or anytime during weekends were considered to present during 'Non-working hours'. The primary outcome of interest was diagnosis of large vessel occlusion. Secondary outcomes included diagnosis of neurovascular event, discharge diagnosis, and good clinical outcome defined as ninety day modified Rankin Scale (mRS) of $\leq$ 2.

Results Over a 4.5 year period, this study analyzed 687 patients who presented to the hospital via Emergency Medical Services with a RACE score of 5 or more. The average age of the cohort was 71.4 years and women comprised 55% of the cohort. Median NIHSS was comparable in the Working (13) and Non-working (14; p=0.48) groups. Intravenous tPA administration (21.7% vs. 26.5%; p=0.15) and risk factors including hypertension, diabetes mellitus, previous stroke, and prevalence of atrial fibrillation were comparable between the two groups. There was no significant difference in the diagnosis of large vessel occlusion (36.4% vs 34.6%) or final discharge diagnosis. Sensitivity of the RACE score for detection of neurovascular events (TIA, ischemic stroke, intracranial hemorrhage) was improved during non-working hours (75.1%) compared to working hours (67.2%; p=0.02). Although door to groin puncture & recanalization times were shorter during working hours, there was no significant difference in the rate of good clinical outcomes (54.1% vs. 51.5%; p=0.76) in patients undergoing mechanical thrombectomy.

Conclusion The sensitivity of the RACE score for detecting large vessel occlusions does not vary significantly during working and non-working hours. However, patients who present with high RACE scores during working hours are more likely to have a diagnosis of a stroke mimic than those presenting off hours.

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P-037 COMPARISON OF RADIATION EXPOSURE AND CLINICAL OUTCOMES BETWEEN TRANSRADIAL AND TRANSFEMORAL DIAGNOSTIC CEREBRAL APPROACHES: A RETROSPECTIVE STUDY

[1,2]C Amankwah*, [1,2]L Lombardo, [1]J Rutledge, [1,2]A Sattar, [1,2]B Chancellor, [1,2]H Moyle, [1,2]D Altschul. [1]*Neuroscience, Valley Health System, Ridgewood, NJ*; [2]*Neurosurgeons of New Jersey, Ridgewood, NJ*

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Background Transradial (TRA) catheterization for neuroendovascular procedures is effective and associated with fewer complications than transfemoral (TFA) procedures. However,