Abstract E-208 Figure 2  AP CTA Thorax Series of Novel Aortic Arch Variant: A, level of the bilateral carotid artery origin. B, level of left subclavian artery origin. C, level of right subclavian artery origin. Right common carotid (RCC), left common carotid (LCC), right subclavian (RS), left subclavian (LS)

Abstracts

E-209  PATIENTS’ PERCEPTIONS OF MOYAMOYA DISEASE ON INSTAGRAM AND TIKTOK
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Introduction Social media platforms have allowed patients to connect with others and disseminate information online. For rarer conditions, it can serve as a method for patients to connect with one another and discuss their condition online. The patient experience and priorities of treatment may vary from a physician’s focus on treatment. This study aims to evaluate the patient perception of Moyamoya disease on various social media platforms.

Methods Instagram, TikTok, and Twitter were queried for posts pertaining to the patient experience with Moyamoya disease. They were searched using the term ‘Moyamoya’, ‘@Moyamoya’, ‘#Moyamoya’, and ‘#Moyamoyasurvivor’. Posts that were not pertaining to the patient experience itself were excluded. Elimination of unrelated posts yielded 502 posts on Instagram and 503 posts on TikTok. No pertinent posts were found on Twitter. Posts were coded for gender, number of surgeries, preoperative or postoperative timing, and pertinent themes.

Results Women posted most of the content on social media regarding the experience with Moyamoya (759, 75.1%). Most posts were about one surgery (770, 83.1%), while a smaller proportion was regarding two or more (81, 8.7%). The most common themes were survival (824, 81.6%) spreading positivity (764, 75.6%), and raising awareness of the condition (655, 64.9%). The most common themes on Instagram were spreading positivity (388, 77.3%), recovery (350, 69.7%), and survival (335, 66.7%). TikTok posts most frequently discussed survival (97.2%), raising awareness of the condition (423, 84.1%), and spreading positivity (372, 74.0%). Patients were more likely to make posts mentioning resiliency (p = 0.0008), life satisfaction (p = 0.0076), and concern of appearance (p = 0.0001) than other individuals posting about their loved one’s experience with Moyamoya disease. Furthermore, patients were less likely to include spreading positivity (p = 0.0283), religious connotations (p = 0.0370), offering/reaching out for support (p < 0.0001) than someone else posting about Moyamoya disease in their family or friends.

Conclusions Social media provides an avenue for Moyamoya patients to discuss their condition online and raise awareness of their rare disease. Patients were more concerned about their personal recovery and appearance after bypass surgery while non-patients were more likely to focus on the positivity and spiritual aspects of the recovery process. Such social media platforms may help healthcare providers in better understanding the patients’ perspectives of the disease.


Abstract E-210 Table 1

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Strongly disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt more comfortable interpreting head CTA/CTA/brain perfusion scans</td>
<td>33.3</td>
<td>33.3</td>
<td>23.8</td>
<td>9.5</td>
<td>0</td>
</tr>
<tr>
<td>I felt more comfortable interpreting brain MRIs/MRAs</td>
<td>33.3</td>
<td>23.8</td>
<td>26.8</td>
<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>I felt more comfortable interpreting cerebral angiograms</td>
<td>19</td>
<td>42.9</td>
<td>23.8</td>
<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>I felt more comfortable identifying cerebral aneurysm/vascular malformations on imaging</td>
<td>19</td>
<td>52.4</td>
<td>19</td>
<td>9.5</td>
<td>0</td>
</tr>
<tr>
<td>I felt more knowledgeable regarding endovascular treatment options for intracranial pathology</td>
<td>28.6</td>
<td>42.9</td>
<td>26.8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I found the interventional neurology rotation to be valuable to my future residency plans</td>
<td>33.3</td>
<td>52.4</td>
<td>14.3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I would have benefitted from more time on the interventional neurology elective in the angio suite during medical school</td>
<td>42.9</td>
<td>28.6</td>
<td>14.3</td>
<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>I would encourage medical students to participate in an interventional neurology rotation</td>
<td>42.9</td>
<td>38.1</td>
<td>19</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

E-210  A SURVEY OF MEDICAL STUDENTS’ PERCEPTION OF THE NEUROINTERVENTION ELECTIVE
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Background There is limited exposure to Interventional Neurology at the medical school level. To familiarize our medical students with this rapidly evolving field, the University of Toledo College of Medicine offers a two-week elective in Interventional Neurology (NIR) to the 4th year students. Since its
inception in 2016, 37 students have taken this elective. This study surveyed these former elective students (ESs) to assess their perceived usefulness of a neuro-IR (NIR) elective.

Methods Of the 37 M4 students who completed the NIR elective, we found contact information for 25 ESs. An online 8 question survey was distributed via email to the students.

Results A total of 21 students completed the survey. Respondents self-identified as either applying to, in residency training, or having completed a residency in internal medicine (4.8%), neurology (81.1%), interventional radiology (4.8%), neurosurgery (4.8%), and orthopedic surgery (4.8%). The level of ESs training is either medical student (57%), PGY1 (4.8%), PGY2 (9.5%), PGY3 (14.3%), PGY4 (4.8%), PGY5 (4.8%), and attending (4.8%). Of all ESs, 85.7% felt the elective rotation reinforced their choice of residency. Refer to the table for survey details.

Conclusion Our survey findings suggest that providing a designated NIR elective for medical students may give the proper direction for trainees to make decisions regarding their residency training. Furthermore, an early orientation may attract medical students to NIR as a career choice. In addition, our survey demonstrates the benefit of a neuro-IR elective in terms of managing cerebrovascular patients.


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Abstract E-211

Rapid Prototyping and Evaluation of 3D Catheter Tip Shapes in a Silicone Transradial Aortic Arch Model

Introduction/Purpose Pre-shaped neuroangiography catheters have shapes constrained to the 2D plane despite the complex 3D geometry of the arch and great vessels. 3D shapes may enable more efficient and safer selection of the great vessels when accessing the arch from a radial approach. We developed a process for generating arbitrary tip shapes, created two 3D variations of the classic Simmons 2, and tested the performance of these catheters in a silicone aortic arch model.

Materials and Methods The standard reverse curve catheter shape was used as a rubric for channel-based heat shaping forms. Right- and left-handed (LH and RH) forms were designed in Onshape by taking the baseline shape and turning the distal tip 90 degrees into or out of the plane (see figure 1). The forms were 3D printed in aluminum by Shapeways. A 2D baseline form was created using the standard reverse curve shape. Straight 5 Fr Terumo GLIDECATH catheters were used as stock, heated in the forms at 160 degrees Celsius for 15 minutes, and rapidly quenched in a room temperature water bath. Catheter performance was evaluated with two tasks: catheter reformation at the arch and great vessel selection from the arch. Three trainee operators performed 10 timed trials of each task with each catheter.

Results The LH catheter reformation times were similar to the Simmons 2 for two operators (all values in median [IQR]: operator A, 12s (9–15) vs 24s (13.5–29.75), operator B, 16s (12.25–20) vs 13s (12.25–26.5)), but slower for the third operator (operator C, 16s (13.25–20.25) vs 9.5s (9–10.75). Selection of the left common carotid and right vertebral arteries was similar to slightly faster for all operators and selection of the right common carotid and left vertebral arteries was similar to slightly slower with the LH catheter compared to the Simmons 2. The RH catheter performed significantly slower than the Simmons 2 and LH catheter for all tasks and operators, and no operator was able to select the left vertebral artery with the RH catheter.

Conclusion 3D catheter shapes can be rapidly prototyped with 3D printed aluminum forms and evaluated in a silicone aortic arch model. In our preliminary trial, the left-handed catheter was comparable to the standard Simmons 2 for most maneuvers and even faster for selection of certain vessels. The right-handed catheter was inferior for all maneuvers.