

Our Webinar connection

James M Milburn

In this month's Editor's Column, I will focus on the growth of our SNIS Webinar series and its influence on neurointerventional (NI) education and professional development in 2020. COVID-19 has certainly created challenges for our fellows and early career practitioners by reducing case volumes for several months.¹ I believe that our SNIS Webinar series has helped lessen this challenge by providing education in an engaging way that can have a very positive influence now and for years to come.

The SNIS Insights webinar series began in May 2018 under the direction of now President-elect Dr Michael Chen, during his tenure as SNIS Education Chair. After succeeding Dr Chen as Education Chair, I continued producing monthly webinars along with a newly formed Education Committee. The webinars continued to be an excellent resource, but the audience was limited with each webinar reaching approximately 100 individuals inclusive of on demand offerings.

On April 2, 2020, we held the historic "SNIS Special Webinar: Neurointerventional Guidance for COVID-19" session which attracted a record 625 live attendees. Perhaps more impressive was that audience engagement kept it going for over 2 hours 15 min. Capitalizing on this new popularity, the Education Committee and Board endorsed increasing the webinar frequency to weekly. Given the popularity of the new medium, the editors of this journal introduced a monthly "JNIS Journal Club" that served to highlight important articles with the added technologically driven benefit of live author interviews.¹⁻⁷ Fourteen webinars were held from the beginning of the pandemic until July 26, culminating with the "SNIS Past Presidents Roundtable" before pausing for the Annual Meeting. Average weekly webinar participation during the period from April to July had risen to 250 live attendees, with 229 additional views for each recorded session.

The most highly attended webinars occurred in April and May, coinciding with the slowest months for NI procedures nationwide. The top 3 attended webinars after the Special COVID-19 Guidance session were "The Chronic

Subdural Hematoma Summit," "Controversies in Aneurysm Therapy: Case-Based Panel Discussion," and "Flow Diversion for Cerebral Aneurysms: Weighing the Options." Webinars in June and July continued to be quite popular, still having a 260% increased reach compared with the pre-COVID-19 sessions.

In order to optimally align these webinars with audience interest moving forward, a survey was sent to the SNIS membership and those non-members who registered for sessions in 2020. This survey consisted of seven questions and a comment section. There were 123 respondents, including 68% postgraduate physicians, 16% physicians in training, 7% industry professionals, and 4% other medical personnel; 76% identified as SNIS members; and 65% had viewed three or more webinars, 14% viewed two, 9% viewed one, and 11% had viewed none. Educational value was rated as excellent by 65%, good by 24%, average by 2%, and 10% had no opinion. When asked at what frequency they would like the webinars to continue in the future, 53% responded every other week, 25% monthly, and 23% weekly.

The survey comments were uniformly very positive, many giving high praise to the speakers as well as the moderators for leading lively question and answer sessions, which included questions from the audience. Several commented that the case panels were their favorite, with panelists offering individual treatment choices and perspectives. Several respondents appreciated seeing diversity among our speakers, panelists, and moderators, which included multiple female, international, and early career physicians alongside seasoned speakers and luminaries in the field. Respondents appreciated the on-demand archive. Others suggested a preferred time of the day and offered ideas for future webinars.

The COVID-19 pandemic led to significant reductions in NI case volumes for 2-3 months in many departments, which has prompted the question of what impact this will have on our current NI fellows. Responses from a recent survey of three major NI societies revealed that 32% of respondents had greater than 50% reduction in thrombectomy volumes, and 68% had experienced over 50% reduction in overall NI volumes.⁸ It is known that

higher case volumes improve physician training, and higher volume centers have better patient outcomes in stroke,^{9 10} so how will this reduction in volumes affect overall education of our future workforce?

Fortunately, NI case volumes at major centers have been steadily increasing year over year, and this is particularly true when it comes to mechanical thrombectomy for emergent large vessel occlusion (ELVO).¹¹ Despite the temporary slowdown many have experienced, typical NI departments should still greatly exceed the case volume^{12 13} recommended to achieve and maintain competency in stroke intervention.¹⁴ While elective cases were suspended for a period, many of these patients were just delayed, ultimately receiving treatment in late May, June, and subsequent months. It will be interesting to compare 2019-2020 academic year case volumes with prior and subsequent years to understand the actual impact.

In a positive twist, the reduction in case volumes allowed more time for thought, reflection and non-cased based learning. The SNIS webinars and JNIS Journal Clubs were a productive way to engage. My favorite moments in national conferences are panel discussions when well-respected experts disagree and challenge one another, showing different ways to approach situations. Our members would seem to agree with survey data indicating that they universally appreciated the frank discussions of controversial topics by recognizable figures. These webinars regularly create such panels with controversial topics and challenging cases.

Our recent experiences and survey data provide valuable guidance as we plan our future webinars. In response to feedback, the Education Committee will continue to offer practical content, which includes frequent case panel discussions. Webinars will occur at least bi-weekly with a diverse group of panelists. Webinars will be promoted on multiple social media platforms including SNIS Connect to remind everyone to register and join. We believe these webinars are a vital way to keep our ever-expanding NI community close and connected. So I urge our JNIS readers to visit the website for recorded content at www.SNISinsights.com, follow on social media, and most importantly join the growing community of SNIS webinar participants.

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REFERENCES

1 Schirmer CM, Ringer AJ, Arthur AS, *et al*. Delayed presentation of acute ischemic strokes during the COVID-19 crisis. *J Neurointerv Surg* 2020;12:639–42.
 2 Limaye K, Van de Walle Jones A, Shaban A, *et al*. Endovascular management of acute large vessel occlusion stroke in pregnancy is safe and feasible. *J Neurointerv Surg* 2020;12:552–6.

3 Alawieh A, Chalhoub R, Korson CJ, *et al*. Impact of reperfusion pump power on technical and clinical outcomes after direct aspiration thrombectomy (ADAPT). *J Neurointerv Surg* 2020;12:579–84.
 4 Rai AT, Frei D. A rationale and framework for seeking remote electronic or phone consent approval in endovascular stroke trials - special relevance in the COVID-19 environment and beyond. *J Neurointerv Surg* 2020;12:654–7.
 5 Fiehler J, Brouwer P, Diaz C, *et al*. COVID-19 and neurointerventional service worldwide: a survey of the European Society of Minimally Invasive Neurological Therapy (ESMINT), the Society of NeuroInterventional Surgery (SNIS), the Sociedad Iberolatinoamericana de Neuroradiología Diagnostica Y Terapeutica (SILAN), the Society of Vascular and Interventional Neurology (SVIN), and the World Federation of Interventional and Therapeutic Neuroradiology (WFITN). *J Neurointerv Surg* 2020;12:726–30.
 6 Alexander MJ, Zauner A, Gupta R, *et al*. The WOVEN trial: Wingspan one-year vascular events and neurologic outcomes. *J Neurointerv Surg* 2020. doi:10.1136/neurintsurg-2020-016208. [Epub ahead of print: 19 Jun 2020].
 7 Hassan AE, Ringheanu VM, Preston L, *et al*. Iv tPA is associated with increase in rates of intracerebral hemorrhage and length of stay in patients with acute stroke treated with endovascular treatment within 4.5 hours: should we bypass IV tPA in large vessel occlusion? *J Neurointerv Surg* 2020. doi:10.1136/neurintsurg-2020-016045. [Epub ahead of print: 03 Jul 2020].
 8 Fargen KM, Leslie-Mazwi TM, Klucznik RP, *et al*. The professional and personal impact of the coronavirus pandemic on US neurointerventional practices: a nationwide survey. *J Neurointerv Surg* 2020;12:927–31.
 9 Fargen KM, Fiorella DJ, Mocco J. Practice makes perfect: establishing reasonable minimum thrombectomy volume requirements for stroke centers. *J Neurointerv Surg* 2017;9:717–9.
 10 Arthur AS, Mocco J, Linfante I, *et al*. Stroke patients can't ask for a second opinion: a multi-specialty response to the Joint Commission's recent suspension of individual stroke surgeon training and volume standards. *J Neurointerv Surg* 2018;10:1127–9.
 11 Stein L, Tuhrim S, Fifi J, *et al*. National trends in endovascular therapy for acute ischemic stroke: utilization and outcomes. *J Neurointerv Surg* 2020;12:356–62.
 12 Linfante I, Nogueira RG, Zaidat OO, *et al*. A joint statement from the Neurointerventional Societies: our position on operator experience and training for stroke thrombectomy. *J Neurointerv Surg* 2019;11:533–4.
 13 Pierot L, Jayaraman MV, Szikora I, *et al*. Standards of practice in acute ischemic stroke intervention: international recommendations. *J Neurointerv Surg* 2018;10:1121–6.
 14 Sasiadek M, Kocer N, Szikora I, *et al*. Standards for European training requirements in interventional neuroradiology guidelines by the Division of Neuroradiology/Section of Radiology European Union of Medical Specialists (UEMS), in cooperation with the Division of Interventional Radiology/UEMS, the European Society of Neuroradiology (ESNR), and the European Society of Minimally Invasive Neurological Therapy (ESMINT). *J Neurointerv Surg* 2020;12:326–31.