Editorial

Neurosurgery as a Growing Specialty

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Innovation is an inevitable unique human nature. From the ancient era to the date when Cushing gave a new identity to this specialty, neurosurgery as a surgical branch has come a long way. Neurosurgery started as an offspring of general surgery. The constant new developments in the field took it to a new level and these have indeed made it the most futuristic specialty.

It all began with trephination. Trephination in the skull is the earliest evidence of neurosurgical procedure performed in the olden days. This was a way to let out evil spirits playing on the minds of people. I came across the ballad based on Joe Mellen-Bart Huges true story.[1] To obtain a state of permanent high, he underwent self-trephination using a dentist drill in 1965. This may be extreme, but we have now seen that strategic planning and appropriate placement of the burr holes are an excellent gateway to the human brain. The outcome of the minimal invasive brain surgery greatly depends on the site of craniotomy.

In the field of neurointervention, we have been striving for better results. Transfemoral access is the time-tested route for entering the intracranial territory and reach the desired target. The other entry route to the intracranial territories is through transradial approach. While cardiology adopted the transradial access route in the early 1980s, it was only in the 21st century that neurointerventionists began opting for the transradial route. The smaller caliber of the radial artery and the construct of the hardware were the biggest rate limiting factors. In this issue of the journal, we present an interesting preliminary experience of our neurointerventionists who attempted radial artery access for aneurysms and stroke successfully in 18 of 20 patients.[2] Many new studies are emerging that suggest transradial access as the future of neurointervention. With the inherent risk of radial artery stenosis and lack of dedicated hardware availability, it is not surprising that there is a steep learning curve. It is therefore recommended that during the learning curve transradial access should be reserved for diagnostic angiography followed by elective procedures. Only when one has done enough transradial access should one attempt the route during emergency procedures.

Influence of neuromonitoring in the outcome of complex surgeries is yet another state-of-the-art tool available in a neurosurgeon's armamentarium. It is considered by some as the third eye in cranial surgeries. Facial nerve monitoring in vestibular schwannoma surgery, for example, is of great consequences in the surgery. Sahana et al analyzed the facial nerve outcome in large vestibular schwannomas and they emphasized that preoperative facial palsy cannot be a deterrent to facial nerve preservation in these cases.[3] Even in spine surgeries, where there are possibilities of loss of spinal signals in neuromonitoring during surgical decompression and instrumentation, many corrective measures can be initiated intraoperatively. Gamblin et al analyzed the accuracy of intraoperative neuromonitoring (IONM) in 131 patients with cervical spondylotic myelopathy.[4] They observed the sensitivity of IONM in predicting postoperative changes to be around 43% with a better specificity of around 68%. There are occasions where we have seen a drop in the potentials but without any neurological consequences. Therefore, it is worthwhile to put our clinical judgement at the top of the pedestal irrespective of the neuromonitoring suggestions.

Then we encountered COVID-19, the greatest teacher in medical history of this century. The mystery around COVID-19 is yet to be solved, but it has given us a lot of opportunities to innovate and improvise the existing system. When we began to think that we had understood the disease and conquered the systemic manifestations resulting from COVID-19, it transformed itself into a new role.

The publication world was drowned in studies reporting on COVID-19 and its manifestations and our continuous fight. The combined effect of cocktail therapy and inherent disease suddenly led to an increase in fungal diseases.

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Acute invasive fungal rhinosinusitis was one such condition, and Yadav et al elaborated on the imaging findings they observed during this phase.[5] Intracranial involvement in the form of meningitis, cerebritis, abscess, and infarcts is commonly encountered and managed.

Progress in neurosurgery is constant and we are witnessing it every day. The need of the hour today is equitable global neurosurgery and it is time we addressed the specific shortages in neurosurgery. Dividing it into specific subspecialities while maintaining the essence of a general neurosurgeon should be the way forward.

Conflict of Interest
None declared.

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