Should Trauma Surgeons Perform Neurosurgery in Emergencies?

Paritosh Pandey[1]

[1]Consultant Neurosurgeon, Manipal Hospitals, Bengaluru, Karnataka, India

Address for correspondence Paritosh Pandey, Consultant Neurosurgeon, Manipal Hospitals, 98, HAL Old Airport Rd, Kodihalli, Bengaluru, Karnataka 560017, India (e-mail: paritosh2000@gmail.com).

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Trauma is one of the most common causes of death and disability, and the burden of trauma in the community is increasing with rising population, vehicles, and other factors. Even though great progress has been made in the institution of resources, hospitals, and staff in the country, the main issues of undersupply and maldistribution of trained doctors are unlikely to change. This is true for developed countries too; however, the condition is especially acute in India, with a huge population, a low number of specialists, and their concentration in urban areas. The need for equitable distribution of specialists is a utopian idea, and hence there needs to be a different idea to improve the availability of services and manpower in areas where there is a paucity of availability. In that sense, the article by Rattan et al forcefully put their point regarding trauma surgeons managing neurotrauma, and operating on head injury is timely.[1]

There are many papers from the West and developed countries, which have been cited in the paper, which point out the advantages of such a system even in places where the resources and facilities are much more plentiful than in our country. There are many factors that favor this practice. There is a definite scarcity of neurosurgeons in the community, and it will be long before we establish any sort of parity of availability of resources between urban and rural areas. Many patients have polytrauma, and neurotrauma is a part of the larger process happening in the process. It is also true that a small number of patients with neurotrauma require surgery, and most of these patients require nonoperative management. Minor head injury forms a large part of neurotrauma and rarely requires operative management. A lot of them can be, and indeed are, treated by physicians, surgeons, and pediatricians. There should be a network where they could consult with the specialists in case of any confusion regarding the management of the patients. There could also be a clear protocol for referral to a higher center according to predetermined end points. It has also been shown that with adequate training, general surgeons or trauma surgeons can perform emergency neurosurgical procedures with equivalent results. This applies to routinely performed surgeries such as craniotomy for extradural or subdural hematomas, placement of intracranial pressure drains, and decompressive hemicraniectomies.

However, there are many caveats to this approach. First of all, the authors suggest undergoing a 3-year trauma surgery course so that the surgeons can be trained in trauma surgery including neurosurgery. However, just as neurosurgeons, many of these graduates will also settle down in big universities and cities and would likely not settle down in areas where there is low availability of neurosurgeons. If there are such trauma surgeons working in an institution that also has neurosurgeons, then there would be an unfortunate conflict of interest between the two specialists. With 200 to 300 neurosurgical specialists passing out every year, it would be better for the neurosurgical specialists to provide neurosurgical and neurotrauma care instead of having a parallel cadre of specialists who are working together. Therefore, is extremely unwise to advocate that trauma surgeons should manage neurotrauma patients and also operate on these patients in an institution where there are neurosurgeons working and being trained already. The other idea, that is, training of district-level surgeons in neurotrauma for 6 months and management of neurotrauma patients by these trained doctors, is better. There is also a need for annual training courses for these specialists. On the other hand, there is also a mandate of having medical colleges and availability of specialists in each of the districts. In such a case, there should be a smooth coordination between the trained general surgeons managing the neurotrauma patients and the neurosurgeon to provide best patient care.

In conclusion, though the trauma surgery course is a step in right direction, it will help in its mission of providing neurotrauma care in areas where there are no neurosurgeons, and this can happen only when these graduates go to the resource-sparse places rather than concentrate in the places and institutions where there are already available resources and manpower. Training of a general surgeon already working in resource-constrained areas in neurotrauma and providing him/her with neurosurgical support through telemedicine, protocols, and referral support, if needed, is recommended.

Reference

1 Rattan A, Kumar S, Gupta A, Mishra B. Management of Patients with Neurotrauma by Trauma Surgeons: Need of the Hour. Indian J Neurotrauma 2019;16(2–3):82–85

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