Neurosurgery.

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Editorial Office, Journal of Neuroinformatics and Neuroimaging, London, United Kingdom

Accepted January 15, 2021

Commentary

The medical specialty of neurosurgery or neurological surgery, also known as brain surgery, is concerned with the prevention, diagnosis, surgical treatment, and rehabilitation of disorders affecting any part of the nervous system, including the brain, spinal cord, central and peripheral nervous systems, and cerebrovascular system. Although neurosurgery, or the planned incision into the head for pain management, has been practised for thousands of years, significant advances in neurosurgery have only occurred in the last century [1]. Most neurosurgical problems, including neurotrauma and other neuro-emergencies such as cerebral bleeding, are treated in general neurosurgery. This is a common procedure in most level 1 hospitals.

Specialized branches have emerged to address unique and challenging situations. In more advanced facilities, these specialist specialties coexist with general neurosurgery. A neurosurgeon must complete an extra one to two years of fellowship training in order to practise advanced specialisation in neurosurgery [2]. The following are some of the neurosurgical divisions:

- Aneurysm Clipping and Carotid Endarterectomy are examples of vascular neurosurgery procedures
- Stereotactic neurosurgery, functional neurosurgery, and epilepsy surgery (the latter includes partial or total corpus callosotomy-severing part or all of the corpus callosum to stop or lessen seizure spread and activity, and the surgical removal of operable, physiological, and/or anatomical pieces or divisions of the brain, called epileptic foci, that are causing seizures, and the surgical removal of functional, physiological, and/or anatomical and the more radical and extremely rare partial or total lobectomy, or even hemispherectomy-the removal of part or all of one of the lobes, or one of the cerebral hemispheres of the brain; those two procedures are also used very, very rarely in oncological neurosurgery or to treat very severe neurological trauma, such as stab or gunshot wounds to the brain)
- Treatment of benign and malignant central and peripheral nervous system cancers and pre-cancerous lesions in adults and children (including, among others, glioblastoma multiforme and other gliomas, brain stem cancer, astrocytoma, pontine glioma, medulloblastoma, spinal cancer) by oncological neurosurgery, also known as neurosurgical oncology
- Skull base surgery
- Spinal neurosurgery
- Peripheral nerve surgery

The cervical, thoracic, and lumbar spines are all covered by spine neurosurgery. Spinal cord compression due to trauma, arthritis of the spinal discs, or spondylosis is all reasons for spine surgery [3]. Patients with cervical cord compression may experience difficulty walking, balance problems, and/or numbness and tingling in their hands and feet. Bone spurring and disc herniation are common complications of this illness. Power drills and specialised equipment are frequently utilised to treat spinal canal compression. Special rongeurs are used to eliminate disc herniations in the spinal vertebral discs [4]. A discectomy is the medical term for this treatment. Once a disc has been removed, it is usually replaced with an implant that creates a bone fusion between the vertebral bodies above and below. To retain movement, a moveable disc could be placed into the disc space. This is a procedure that is frequently utilised in cervical disc surgery [5]. A Laser discectomy may be performed to decompress a nerve root instead of disc removal.

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