

Letter to Editor: Brain Mapping in Neurosurgical Oncology



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The art is long and the life short. The prognosis of glioma has been improved and upgraded during the latter part of the last century, which can be attributed to the advances in pathological classification, microsurgical techniques, and further advances in adjuvant therapies [1]. Glioma and its surgical management have always remained the Holy Grail for neurosurgeons worldwide. Thus, choosing the best and optimal treatment, despite recent advances, has always been a subject of debate and controversy [2].

Since the advent of modern neurosurgery, localization of lesions, the electrophysiological study of the brain, functional mapping, and awake craniotomy have been practiced and later developed by the pioneers of neurosurgery, such as Penfield and Cushing before MRI stepped into clinical practice.

After the introduction of MRI, new modalities facilitated the procedure of surgical planning to achieve the goal of microsurgery and improve prognosis and quality of life in patients. Despite the variable applications of preoperative and intraoperative mapping and monitoring systems, several limitations and concerns are reported for each method.

In this issue of the Iranian Journal of Neurosurgery (Ir-JNS), we are delighted to present papers discussing different aspects of brain mapping in neurosurgical oncology, including brain mapping, Diffusion Tensor Imaging (DTI), tractography, and navigation systems. Moreover, new modalities, such as Fluorescence Image-Guided Surgery (FIGS) are discussed.

Ethical Considerations

Compliance with ethical guidelines

There was no need for ethics approval.

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