

Neurosurgery is the Pterional Surgery!

Dr. Ismail Hakki Aydin*

Professor of Neurosurgery, Department of Neurosurgery, Istanbul Aydin University, Medical School, Kucukcekmece, Istanbul, Turkey

***Corresponding Author:** Dr. Ismail Hakki Aydin, Professor of Neurosurgery, Department of Neurosurgery, Istanbul Aydin University, Medical School, Kucukcekmece, Istanbul, Turkey.

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Neurosurgery is the extraordinary branch of the Medicine and the Surgery. Also, Brain Surgery is the main part of the Neurosurgery that consist of Surgery, Neurology and Psychiatry, and refers to various medical and surgical procedures that involve treating, repairing structural abnormalities and physiopathological problems in the brain [1].

Many different neurosurgical approaches and procedures have been proposed in order to facilitate exposure and treatment of lesions in the brain and the skull-base region with a minimal of brain retraction [2].

The sub temporal approach was first described by Drake in 1961. Yasargil introduced the frontotemporosphenoidal craniotomy, which was named as a pterional approach in 1969. I got this Yasargil's approach named as "Yasargil Surgical Highway". Most neurosurgeons use one of these two basic surgical approaches, although with some minor modifications and refinements [1-13].

The pterional approach that was first popularized by Yasargil, (Yaşargil Surgical Highway) is commonly employed in surgery of the anterior circulation and upper basilar artery aneurysms, as well as for the tumors of orbital, retroorbital, sellar, chiasmatic, subfrontal and prepontine areas and lesions around the sella especially for lesions behind the clivus. Also tumors arising from the medial sphenoid ridge, the superior orbital fissure, the anteromedial temporal surface, or the cavernous sinus region are approached through a pterional exposure [1].

The surgical technique is based on the experience, training and observation of the neurosurgeon. One technique is not necessarily better than another. Regardless of the surgical technique, the end results depend on a rigorous, methodical, systematic, and step-by-step approach to the target, securing it with minimal injury to surrounding structures [2-8].

Surgical steps in Yasargil Surgical Highway are the patient positioning, the preservation of the front temporal branch of the facial nerve, craniotomy, Sylvian dissection and variations, retraction of frontal and temporal lobes, preservation of the lenticulostriatal arteries, preservation of the dural artery, preservation of the olfactory nerve, other neurovascular structures and especially preservation of the Heubner artery [1-8].

Nowadays, most of the neurosurgeons generally use these two basic (Sub temporal and Pterional) surgical approaches for treatment of many brain lesions, although with some minor modifications and refinements. Most popular one, is the Pterional Surgical Approach that I called as "Yaşargil Highway" [1,9].

Although the progressions and the advanced technical facilities in neurosurgical procedures, if a neurosurgeon has a good and wide experience and knowledge about surgical anatomy, technics and pitfalls in the pterional approach, he can safely operate and treat to the most of the brain lesions.

In our neurosurgical practice, Pterional Surgery is very important and the main most versatile surgical approach to the many brain and skull-base lesions from neurovascular pathologies to the tumors [1,4,5,7,12,13]. For that, We all Neurosurgeons, must be aware of

the importance of the pterional approach and its modifications.

For all these reasons, I can say that, Neurosurgery is the Pterional Surgery!

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