

## **Extradural Temporopolar Approach To Treat Internal Carotid Artery Paraclinoid Aneurysms And Basilar Artery Distal Aneurysms**

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The extradural temporopolar approach (EDTPA) is mainly based on Dolenc's technique but is more focused on retraction of the temporal lobe along with the dura mater. EDTPA allows extradural retraction of the temporal lobe which reduces the necessity of sacrificing sylvian veins and provides a wide surgical corridor to the retrocarotid space and interpeduncular cistern through the opened anterior part of the cavernous sinus. IC paraclinoid aneurysms and BA distal aneurysms are still challenging ones to treat and are currently treated by endovasucular intervention. Clipping is still and generally considered to be durable treatment.

Since August 2009 we have adopted EDTPA to 122 cases of skull base tumor and aneurysmal treatment including 61 clipping surgery for IC paraclinoid aneurysm and distal BA aneurysm. 41 IC paraclinoid aneurysms included 5 ruptured cases. 20 distal BA aneurysms included 9 BA tip and 11 BA-SCA aneurysms including only one ruptured case. Spinal drainage was instituted via lumbar spine. Dura propria of the temporal lobe was peeled from the lateral wall of the cavernous sinus (CS). Anterior clinoid process was epidurally removed and optic canal also epidurally opened. Tentorium was incised from anterior petroclinoid ligament and the temporal lobe was retracted posteriorly over the dura mater. Suction decompression via cervical IC was performed in the 27 cases of IC paraclinoid aneurysms. All aneurysms were successfully clipped except one, which was completely located in the CS. During the follow-up period up to 10 years, no patient showed any recurrence of clipped aneurysms. We verify clipping for IC paraclinoid and BA aneurysms is durable treatment.

We will discuss the surgical tips of the EDTPA and surgical results including complications.