

# Infra-Occipital Supra-Tentorial Approach

see also [Occipital transtentorial approach](#).

**Surgical treatment** of lesions involving the postero-medial [occipitotemporal region](#) is challenging because of the high risk of [morbidity](#) due to damage or excessive [retraction](#) of critical neurovascular structures, especially within the [dominant hemisphere](#).

De Benedictis et al. from the [Bambino Gesù Children's Hospital](#), IRCCS, [Rome](#) described the case of a 17-yr-old patient who underwent resection of an epileptogenic [low-grade glioma](#) located within the left-dominant [lingual gyrus](#). [Seizures](#) were characterized, as a first symptom, by the right-sided simple [visual hallucination](#) that pointed to the left pericalcarine region, corresponding to the lesion location. No signs of primary involvement of anterior temporal-mesial structures ([hippocampus/amygdala](#)) were found. As the anatomic-electroclinical correlation was concordant, direct tumor [removal](#) was indicated through an infra-occipital supratentorial approach. This route allowed direct access to the target through a safe extra-axial corridor, which limits intraparenchymal dissection until the tumor margin is identified and avoids critical vascular structures, such as the [vein of Labbé](#).

External [cerebrospinal fluid drainage](#) was used to facilitate [brain relaxation](#), minimizing brain and venous retraction and, consequently, reducing the risk of postoperative [neurological complications](#), especially for [vision](#). Postoperative [magnetic resonance imaging](#) (MRI) demonstrated no surgical complications. Pathological examination revealed a [ganglioglioma](#). At 9-mo follow-up, the neurological examination was normal, [antiepileptic therapy](#) was stopped, and the patient was seizure-free. The [video](#) describes the main surgical steps, using both intraoperative videos and advanced 3-dimensional modeling of neuroimaging pictures <sup>1)</sup>.

<sup>1)</sup>

De Benedictis A, de Palma L, Herur-Raman A, Pepi C, Colafati GS, Carboni A, Randi F, Savioli A, Ricci G, Mastronuzzi A, Carai A, Specchio N, Marras CE. Infra-Occipital Supra-Tentorial Approach for Resection of Low-Grade Tumor of the Left Lingual Gyrus: 2-Dimensional Operative Video. Oper Neurosurg (Hagerstown). 2021 May 22:opab172. doi: 10.1093/ons/opab172. Epub ahead of print. PMID: 34022047.

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