

Insular glioma clinical features

They are typically large at the time of presentation and frequently cause epilepsy as their only initial symptom ^{1) 2) 3)}.

Patients with **insular gliomas** have significant impairment of autonomic functions with left insular glioma showing sympathetic dominance. Suppression of autonomic function is more in those presenting with seizures ⁴⁾.

The **insula** is functionally involved in **heart rhythm** and **arterial blood pressure** control, as well as in visceromotor control and in viscerosensitive functions. There is substantial evidence that the insula is involved as a somesthetic area, including a major role in the processing of nociceptive input. The role of the insula in some epilepsies was recently investigated by means of depth electrode recordings made following Talairach's stereoelectroencephalography (SEEG) methodology. It appears that ictal signs associated with an insular discharge are very similar to those usually attributed to mesial temporal lobe seizures. Ictal symptoms associated with insular discharges are mainly made up of respiratory, viscerosensitive (chest or abdominal constriction), or oroalimentary (chewing or swallowing) manifestations. Unpleasant somatosensory manifestations, always opposite the discharging side, are also frequent. Ictal signs arising from the insula occur in full consciousness; these are always simple partial seizures. Seizures arising from the temporal lobe always invade the insular region, but in approximately 10% of cases, the seizures originate in the insular cortex itself. These data explain that there has been a rebirth of interest in the insula from a surgical perspective over the past few years ⁵⁾

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