

Autonomic nervous system dysfunction

Autonomic nervous system (ANS) **dysfunction** is a known entity in **strokes** involving **insula**. It causes significant **morbidity** and **mortality**.

A total of 50 patients with newly diagnosed **insular glioma** in the **age** group of 18-60 year, were evaluated with **heart rate variability** (HRV). All the HRV parameters in patients with insular glioma were compared with normal healthy **age** and **gender** matched controls.

There was a significant difference ($p\text{-value} < 0.05$) in most of the HRV parameters between patients and controls. Patients with left insular glioma showed significantly increased heart rate ($p = 0.027$), LF nu ($p = 0.048$), and also increased LF/HF ($p = 0.015$), which indicates sympathetic dominance. Patients with **seizures** had significantly lower values of total power ($p = 0.042$). No significant difference was found in terms of the extent and size of the **tumor** or histopathological grades of **gliomas**.

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 ¹⁾.

¹⁾

Mishra A, John AP, Shukla D, Sathyaprabha T, Devi BI. Autonomic Function In Insular Glioma - An Exploratory Study. World Neurosurg. 2018 Jul 20. pii: S1878-8750(18)31585-7. doi: 10.1016/j.wneu.2018.07.107. [Epub ahead of print] PubMed PMID: 30036712.

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