

Intracranial germ cell tumor epidemiology

Intracranial germinomas comprise 0.5-2.0 % of all central nervous system (CNS) tumors and 50-60 % of CNS germ cell tumors.

They most frequently originate in the **pineal gland** and the **suprasellar region**.

Intracranial germinomas (IGs) comprise 1.3% of all primary intracranial brain tumors in adolescents and young adults, and, among them, only 5–10% develop in other brain regions, which are known as ectopic germinomas (EGs).

These tumors may originate from any midline or paramedian structure of the brain. EGs in the basal ganglia or thalamus are the most common ¹⁾. There have been only a few EGs reported in the corpus callosum ^{2) 3)}, medulla oblongata ⁴⁾, and cerebellum ⁵⁾, all of which showed no other lesion locations simultaneously.

Their origin within the optic nerve or chiasm is extremely rare ⁶⁾.

Loco-regional extension of suprasellar GCT to the optic nerve is not uncommon; however, infiltration of the tumor into the retina is only reported in the literature by Abu Arja et al., . Early detection of **optic pathway** involvement and proper delineation of the irradiation field may prevent GCT infiltration of the retina with subsequent **vision loss** ⁷⁾.

References

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