

Intracranial germinoma

Intracranial germinomas (GN) are rare cancers that primarily affect children, making them rarer still in adults. Standard treatment for this neoplasm includes neoadjuvant chemotherapy (NC) followed by radiotherapy (RT) or RT at a higher dose and larger field. These recommendations are based on studies focused mostly on children; it is currently unclear whether this treatment is applicable to adults ¹⁾.

see [Intracranial germ cell tumor](#).

see [Neurohypophyseal germinoma](#).

see [Pineal germinoma](#).

see [Corpus callosum germinoma](#).

see [Chiasmal germinoma](#).

see [Suprasellar germinoma](#).

Of 39 patients with [intracranial germinoma](#), 22 (73% male) had symptomatic hydrocephalus at diagnosis (11 [pineal germinoma](#), 4 [suprasellar germinoma](#), and 7 bifocal). Management of hydrocephalus included [external ventricular drain](#) (EVD) (n = 5, 22.7%), [endoscopic third ventriculostomy](#) (ETV) (n = 5, 22.7%), and combination [endoscopic third ventriculostomy](#) and EVD (n = 7, 31.8%), whereas 5 patients (22.7%) did not undergo surgical intervention. The median [fronto occipital horn ratio](#) (FOR) at diagnosis was 0.42 (range 0.38-0.58), which correlated with moderate to severe [ventriculomegaly](#). [Carboplatin](#) and [etoposide](#)-based [chemotherapy](#)-induced fast tumor shrinkage, avoiding CSF diversion (n = 5) and resolving hydrocephalus with a transient EVD (n = 5). The median duration until EVD removal was 7 days (range 2-10 days). Two of 12 patients with EVD ultimately required a VP shunt. Kaplan-Meier's overall survival was 100% and progression-free survival was 96.4% at a median follow-up of 10.4 years.

Timely initiation of [chemotherapy](#) is imperative to rapidly reduce tumor bulk in children with [intracranial germinoma](#) and limits the need for [ventriculoperitoneal shunt](#) insertions. In children in whom CSF diversion is required, [hydrocephalus](#) may be successfully managed with a temporary [external ventricular drain](#) ± [endoscopic third ventriculostomy](#) ²⁾.

¹⁾

Fernández-Rodríguez LJ, Maldonado-Pijoan X. Pineal germinoma in a young adult: A case report. Cancer Rep (Hoboken). 2022 Mar 28:e16111. doi: 10.1002/cnr2.16111. Epub ahead of print. PMID: 35347869.

²⁾

Ronsley R, Bouffet E, Dirks P, Drake J, Kulkarni A, Bartels U. Successful management of symptomatic [hydrocephalus](#) using a temporary [external ventricular drain](#) with or without [endoscopic third ventriculostomy](#) in [pediatric patients](#) with [germinoma](#). J Neurosurg. 2021 Dec 3:1-6. doi: 10.3171/2021.8.JNS211443. Epub ahead of print. PMID: 35238528.

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