

Giant pediatric supratentorial tumor

Zhang et al. analyzed the clinical data comprising 35 cases of Giant [pediatric supratentorial tumors](#) from a single center between January 2015 and December 2020. The tumor volume was measured by 3D slicer software based on preoperative magnetic resonance imaging (MRI). Glasgow Outcome Scale (GOS) was used to evaluate the short-term prognosis.

Result: The tumor volume varied from 27.3 to 632.8 ml (mean volume 129.8 ml/ median volume 82.8 ml). Postoperative histopathological types include ependymoma, pilocytic astrocytoma, choroid plexus papilloma (CPP), [craniopharyngioma](#), primitive neuroectoderm tumor (PNET), choroid plexus carcinoma (CPC), immature teratoma, atypical teratoid rhabdoid tumor (AT/RT), anaplastic astrocytoma, and gangliocytoma. Tumors in children younger than 3 years and tumors located at the hemispheres appeared to be larger than their respective counterparts, though no statistical significance was found. A patient with giant immature teratoma died during the operation because of excessive bleeding. Postoperative complications include cerebrospinal fluid subgaleal collection/effusion, infection, neurological deficits, and seizures. The mean GOS score of patients with GPST in 6 months is 3.43 ± 1.12 , and 83% of patients (29/35) showed improvement. Favorable GPST characteristics to indicated better GOS included small tumor (≤ 100 ml) ($p = 0.029$), low-grade (WHO I-II) ($p = 0.001$), and gross total resection (GTR) ($p = 0.015$). WHO grade was highly correlated with GOS score (correlation coefficient = -0.625 , $p < 0.001$). GTR and tumor volume were also correlated (correlation coefficient = -0.428 , $p = 0.010$).

Conclusion: The prognosis of GPST is highly correlated with the histopathological type. Smaller tumors are more likely to achieve GTR and might lead to a higher GOS score. Early diagnosis and GTR of the tumor are important for GPST management ¹⁾.

¹⁾

Zhang ZD, Fang HY, Pang C, Yang Y, Li SZ, Zhou LL, Bai GH, Sheng HS. Giant Pediatric Supratentorial Tumor: Clinical Feature and Surgical Strategy. *Front Pediatr.* 2022 Apr 26;10:870951. doi: 10.3389/fped.2022.870951. PMID: 35558365; PMCID: PMC9086618.

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