

Adult brainstem gliomas are characterized into subtypes depending on clinicopathologic and radiographic characteristics. Among them, **brainstem glioblastoma** is the most malignant and has the poorest **prognosis**, with surgical **resection** for this condition posing a great challenge and risk. Postoperative synchronous radiotherapy and **temozolomide** (TMZ) **chemotherapy**, or “Stupp protocol”, is the standard of care for **glioblastomas**. However, **antiangiogenic therapy**, which is widely used for different **cancers**, is now an alternative treatment for **malignant tumors**. **Angiogenesis** is one of the pathological features of **glioblastoma** and is involved in **tumor progression** and **metastases**. Besides, previous studies suggested a better response to antiangiogenic therapy in some solid tumors with **TP53** mutation than TP53 wide-type. **Apatinib** is a novel, oral, small-molecule tyrosine kinase inhibitor that mainly targets vascular endothelial growth factor receptor-2 (VEGFR-2) to inhibit angiogenesis. In addition, **apatinib** can cross the blood-brain barrier and improve encephaledema. A report by Zhu et al. describes the use of concurrent **apatinib** and dose-dense TMZ in a clinically inoperable patient who had a refractory brainstem glioblastoma with a TP53 **germline mutation**. He obtained an ongoing **progression-free survival** (PFS) of nearly 16.0 months after resistance to TMZ maintenance. Due to the patient's circumstances, apatinib and TMZ was considered an effective and safe treatment method ¹⁾

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Zhu Y, Zhao L, Xu Y, Zhan W, Sun X, Xu X. Combining **apatinib** and **temozolomide** for **brainstem glioblastoma**: a **case report** and **review** of **literature**. Ann Palliat Med. 2022 Jan;11(1):394-400. doi: 10.21037/apm-22-22. PMID: 35144430.

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