

Glioblastoma Pathology

Histological features of **Glioblastoma** include marked **hypercellularity**, **nuclear atypia**, **microvascular proliferation**, and **necrosis**. The tumor shows palisading of tumor cells around necrotic foci; in addition, Glioblastoma harbors **cancer stem cells** (CSCs). Although histological analysis remains essential in the diagnosis of gliomas, recent discoveries especially in the field of genetics strongly improved our understanding of these tumors. In addition to the mutational status of IDH1/2 and enzymes involved in a variety of metabolic processes, such as the production of redox species and epigenetic mechanisms, and DNA repair ^{1) 2) 3) 4)}.

Abnormal vascularity

Glioblastoma is characterized by heterogeneous and abnormal vascularity. Subtypes of vascular habitats within the **tumor** and **edema** can be distinguished: high **angiogenic** tumor (HAT), low angiogenic tumor (LAT), infiltrated peripheral **edema** (IPE), and peripheral **vasogenic edema** (VPE).

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