

# Emerging insights on management of high-grade glioma

High-grade gliomas (HGG) are the most prevalent malignant primary brain tumors in adults. They have aggressive clinical behaviors and poor treatment outcomes. It remains one of the most challenging diseases in modern medicine. The progress in HGG treatment is unfortunately slow and limited. Nonetheless, advances are made with decades of relentless pursuit. This special series of *Chinese Clinical Oncology* compiles a series of excellent articles covering multiple aspects of the current clinical research and treatment landscape of HGG with a special emphasis on glioblastoma (GBM). These articles summarize the current understanding, modern management, and future directions.

The 2021 fifth edition of the World Health Organization (WHO) classification of tumors of central nervous system (CNS) introduced major changes that advance the role of molecular diagnostics in CNS tumor classification. This special series included a clinical practice review on updates in the diagnosis and classification of diffuse glioma and provided clinical practice guidance. The articles published in this special series also cover a broad spectrum of modern treatment strategies for GBM, including immunotherapy, tumor-treating fields, and radiation treatment. Immunometabolic research is a new area of study that focuses on the clinical implications of immune cell metabolism on cancer progression and therapeutics. There is a timely review article on its relevance to immunotherapy development for HGG. Tumor-treating fields is a relative new technology that is now Food and Drug Administration (FDA) approved for newly diagnosed and recurrent GBM based on phase 3 randomized trials (EF11 and EF14). Research development suggested its synergistic effect with radiation treatment. In this special series, there is a narrative review on tumor-treating fields with radiation treatment in GBM, an exploratory study evaluating predictive molecular markers in such approach, as well as an interesting case report on very favorable and durable response in a GBM patients with gliomatosis. Radiation is one of the most important adjuvant treatments for patients with HGG. In this special series, there are several articles on radiation treatment, including a review on current status of proton therapy in HGG, modern radiation strategy for elderly patients with GBM, novel scalp-sparing radiation techniques, as well as a comprehensive review on radiation, lymphopenia, and the association with outcome.

Overall, these excellent contributions provide a nice overview of the current state of art management of HGG.

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## Footnote

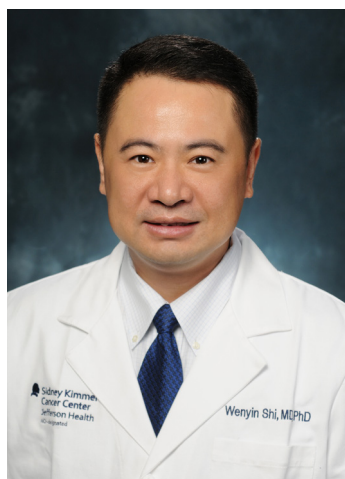
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