ABSTRACT

Targeting Glioblastoma: The Current State of Different Therapeutic Approaches.

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BACKGROUND: Glioma is the primary cancer of the central nervous system in adults. Among gliomas, glioblastoma is the most deadly and aggressive form with an average life span of 1 to 2 years. Despite implementing the rigorous standard

care involving maximal surgical removal followed by concomitant radiation and chemotherapy, the patient prognosis remains poor. Due to the infiltrative nature

of glioblastoma, chemo- and radio-resistance behavior of these tumors and lack of potent chemotherapeutic drugs, treatment of glioblastoma is still a big challenge.
OBJECTIVE: The goal of the present review is to shed some light on the present state of novel strategies including molecular therapies, immunotherapies, nanotechnology and combination therapies for patients with glioblastoma.
METHODOLOGY: Peer reviewed literature was extracted via Embase, Ovid, PubMed and

Google Scholar till the year 2020.
CONCLUSION: Insufficient effect of chemotherapies for glioblastoma is more likely because of different drug resistance mechanisms and intrinsically complex

pathological characteristics. Therefore, more advancement in various therapeutic

approaches such as antitumor immune response, targeting growth regulatory and drug resistance pathways, enhancing drug delivery and drug carrier systems are required in order to establish an effective treatment approach for patients with

glioblastoma.