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Recent update on anti-tumor mechanisms of valproic acid in glioblastoma multiforme

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Abstract

Glioblastoma multiforme (GBM) is a malignant tumor of the brain that is considered to be incurable. Currently, surgical removal of tumors, chemotherapy with temozolomide, and radiation treatment remain established options for treatment. Nevertheless, the prognosis of those with GBM continues to be poor owing to the inherent characteristics of tumor growth and spread, as well as the resistance to treatment. To effectively deal with the present circumstances, it is vital to do extensive study to understand GBM thoroughly. The following piece provides a concise overview of the most recent advancements in using valproic acid, an antiseizure medication licensed by the FDA, for treating GBM. In this review, we outline the most recent developments of valproic acid in treating GBM, as well as its fundamental mechanisms and practical consequences. Our goal is to provide a greater understanding of the clinical use of valproic acid as a potential therapeutic agent for GBM.

Keywords: Chemotherapy; Glioblastoma multiforme; Seizure; Tumor; Valproic acid.

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