ABSTRACT

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Comprehensive pharmacogenomics characterization of temozolomide response in gliomas.

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Recent developments in pharmacogenomics have created opportunities for predicting temozolomide response in gliomas. Temozolomide is the main first-line alkylating chemotherapeutic drug together with radiotherapy as standard treatments of high-risk gliomas after surgery. However, there are great individual differences in temozolomide response. Besides the heterogeneity of gliomas, pharmacogenomics relevant genetic polymorphisms can not only affect pharmacokinetics of temozolomide but also change anti-tumor effects of temozolomide. This review will summarize pharmacogenomic studies of temozolomide in gliomas which can lay the foundation to personalized chemotherapy.

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