Quercetin promotes glioma growth in a rat model.

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Abstract
We have previously demonstrated that quercetin (Quer), a polyphenol widely found in vegetables, decreased glioma cell growth in vitro. Here, we asked whether this compound could affect glioma growth in an in vivo rat glioma model. We found that daily intraperitoneal Quer (50mg/kg) injections lead to a concentration of 0.15 μg of Quer per gram of brain tissue, which increased the tumor volume in a time dependent manner. We observed a small reduction in lymphocytic infiltration, a marker of good prognosis in gliomas that was accompanied by a small reduction in cell viability of peripheral T-cells. Moreover, after Quer treatment neither body weight alteration nor liver pathology markers were detected. Although in vitro studies and massive literature reports point to the antitumoral properties of Quer, the present results indicate that great caution has to be taken in the design of clinical trials and the indiscriminate use of this polyphenol as dietary supplement.

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KEYWORDS: ALT, AST, C, DMEM, Dulbecco’s modified Eagle’s medium, GBM, Glioblastoma, In vivo glioma model, PHA, Quer, Quercetin, Tumor cell growth, alanine aminotransferase, aspartate aminotransferase, control, glioblastoma, phytohaemagglutinin, quercetin, γ-GT, γ-glutamyltransferase

PMID: 24252772 [PubMed - in process]