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Glioma, melatonin and radiotherapy.

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To the Editor. Accumulative evidence indicates antitumor effects of melatonin in a variety of malignancies (1,2). Accordingly, Martin *et al.* have recently reported cell growth inhibition of glioma by melatonin (3). This study is of peculiar interest since melatonin is produced in the brain by the pineal gland. This location of the pineal gland, near the center of the brain, suggests that in addition to hypothalamic-pituitary dysfunctions (4), a melatonin deficiency could also occur in some patients following brain radiotherapy (5). Although the consequences of melatonin deficiency on glioma growth remain to be investigated, the report of Martin *et al.* have important implications for the development of a possible circadian-based cancer therapy of glioma. Moreover, it highlights the importance of determining the pineal status of patients following brain radiotherapy, by measuring, for example, the melatonin metabolite, 6-sulphatoxymelatonin, in the first morning urine (6). In addition to its relevance in the follow-up of patients, this dosage could help to further elucidate the link between melatonin and glioma growth.

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