

## Female gender is not a proven risk factor for depression in glioma

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### To the Editor:

We read Litofsky and Resnick's timely and useful review of depression in brain tumour patients with interest [1]. The authors identified screening for depression as an issue requiring future study. Because screening is often targeted at high-risk groups, it is important to study the risk factors for depression in brain tumour patients.

The authors state that female gender is a risk factor for depression in glioma. It is true that some groups have found women with brain tumours to be more likely than men to become depressed [2, 3]. However other researchers have not, including one of the authors of the review [4–6].

We sent a questionnaire to the GP of each glioma patient on our hospital database (Edinburgh, UK), asking whether their patient had suffered depression both before and since the diagnosis of glioma. The diagnosis of depression was based on the clinical judgement of each GP. Response rate was 68% (100/147; 55% male). A pre-glioma (past medical) history of depression was significantly more likely in women (12/45 women compared with 3/55 men;  $P = 0.004$ , Fisher's Exact Test). However following glioma presentation the sex difference in depression disappeared and men were equally as likely as women to experience depression (12/55 and 12/45 respectively;  $P = 0.64$ ).

Female gender is not a proven risk factor for depression in glioma. Since general population surveys consistently

report that depression is twice as common in women [7], studies reporting a more equal sex distribution for depression in brain tumours may even suggest a relatively increased risk for *men*.

We agree that depression in glioma is a fertile field for research. For now we suggest that men and women with glioma should be considered at equal risk of developing depression, and that efforts should therefore be made to include them equally in any proposed screening programmes.

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