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Herpes zoster in patients with glioma treated with temozolomide

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Abstract

Background: The risk of herpes zoster in patients treated with temozolomide is poorly defined in the literature. We aimed to evaluate the incidence of and risk factors for herpes zoster in individuals receiving temozolomide for glioma.

Methods: A retrospective observational study was conducted on a series of patients treated with temozolomide for glioma at a single centre between 1 October 2018 and 30 September 2023.

Results: 131 patients were treated with temozolomide for glioma with a median age of 55 years. 4 out of 131 patients (3.1 %) developed herpes zoster during temozolomide treatment. All cases of herpes zoster occurred in patients who had lymphocyte nadirs of less than $0.7 \times 10^9/L$ and were receiving corticosteroids concomitantly. The estimated herpes zoster incidence rates were 45.44 per 1000 person-years (95 % confidence interval (CI) 12.38-116.34 per 1000 person-years) in the overall study population and 224.97 per 1000 person-years (95 % CI 61.30-576.02 per 1000 person-years) in subjects who were treated with corticosteroids and had a lymphocyte nadir of less than $1.0 \times 10^9/L$.

Conclusion: Use of temozolomide, particularly in conjunction with lymphopaenia or corticosteroid use, poses a risk of herpes zoster. Further research into the benefits of prophylactic antiviral measures in this population is recommended.

Keywords: Glioma; Herpes zoster; Temozolomide.

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