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Long-term impact of cognitive deficits and epilepsy on quality of life in low-grade meningioma patients.

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Abstract

BACKGROUND: WHO grade I meningiomas are common and mostly benign primary brain tumors. Little is known about the health-related quality of life (HRQOL) of meningioma patients. Objective: To investigate the long-term HRQOL in meningioma patients and its association with cognitive deficits and epilepsy.

METHODS: HRQOL was assessed by the SF-36 questionnaire in 89 WHO grade I meningioma patients at least one year following neurosurgery with or without radiotherapy. Cognitive functioning was measured by a neuropsychological test battery, and epileptic seizure frequency and antiepileptic drug (AED) use were determined for each patient. HRQOL of patients was compared to that of 89 healthy controls individually matched for age, gender, and educational level.

RESULTS: Meningioma patients as a group did not differ from healthy controls on 7 out of 8 SF-36 scales; patients only reported more role limitations caused by physical problems ($p < 0.05$). Meningioma patients had significant impairment in 4 of 6 cognitive domains, most pronounced in the domain of executive functioning. Impaired cognitive functioning as well as AED use were associated with a compromised HRQOL. Of the 23 patients using AEDs, HRQOL was significantly impaired on 5 out of 8 SF-36 scales. In patients using AED, neither cognitive functioning nor HRQOL differed between those with or without seizure control.

CONCLUSION: The HRQOL of the majority of WHO grade I meningioma patients is comparable to that of the general population. However, HRQOL is worse in patients with major cognitive deficits and those using AEDs, irrespective of seizure control.

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