

Indications for surgery in patients with asymptomatic meningiomas based on an extensive experience.

Clinical Articles

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OBJECT. To determine the indications for surgery in patients harboring asymptomatic meningiomas, the authors retrospectively analyzed the natural course and surgical outcome of asymptomatic meningiomas and then compared these to the natural course and surgical outcome of symptomatic meningiomas.

METHODS. Between 1989 and 2003, 1434 patients harboring meningiomas, who were treated in Kumamoto Prefecture, Japan, were enrolled in this study. Six hundred three patients had asymptomatic lesions and 831 had symptomatic ones. The authors analyzed the sizes of the lesions at detection, their growth over time, and any appearances of symptoms associated with previously asymptomatic meningiomas. The authors then compared the surgery-related morbidity rates associated with asymptomatic and symptomatic meningiomas arising at different locations. Of the 603 asymptomatic meningiomas, 351 (58.2%) were treated conservatively. Tumor growth was observed in 25 (37.3%) of 67 patients who participated in follow up for longer than 5 years, and symptoms developed in 11 (16.4%) of the 67 patients over a mean follow-up period of 3.9 years. Among the 213 patients with surgically treated asymptomatic meningiomas, the morbidity rate was 4.4% in patients younger than 70 years of age and 9.4% in those 70 years of age or older. Although the total morbidity rate was lower in patients with asymptomatic lesions than in those with symptomatic ones, it exceeded 6% in patients whose asymptomatic tumors were located at the convexity or falx.

CONCLUSIONS. Approximately 63% of asymptomatic meningiomas did not exhibit tumor growth, and only 6% of all patients with these lesions experienced symptoms during the observation period. To avoid surgery-related incidences of morbidity in patients with asymptomatic meningiomas, conservative treatment with close follow-up review may be the best therapeutic strategy.

KEYWORDS: meningioma, surgery, natural course of disease