



Visual Recovery and Prediction of Recurrence in Giant Olfactory Groove Meningioma: A 22-Year Retrospective Study

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Introduction

Olfactory groove meningiomas (OGMs) comprising 13% of intracranial meningiomas . OGMs are slow-growing tumors often going undetected until reaching Giant size. These tumors can cause a variety of symptoms, including headaches, personality changes, insomnia, and visual deterioration. A little is known about the visual recovery and prediction of recurrence of giant olfactory groove meningioma patients.

Methods and Materials

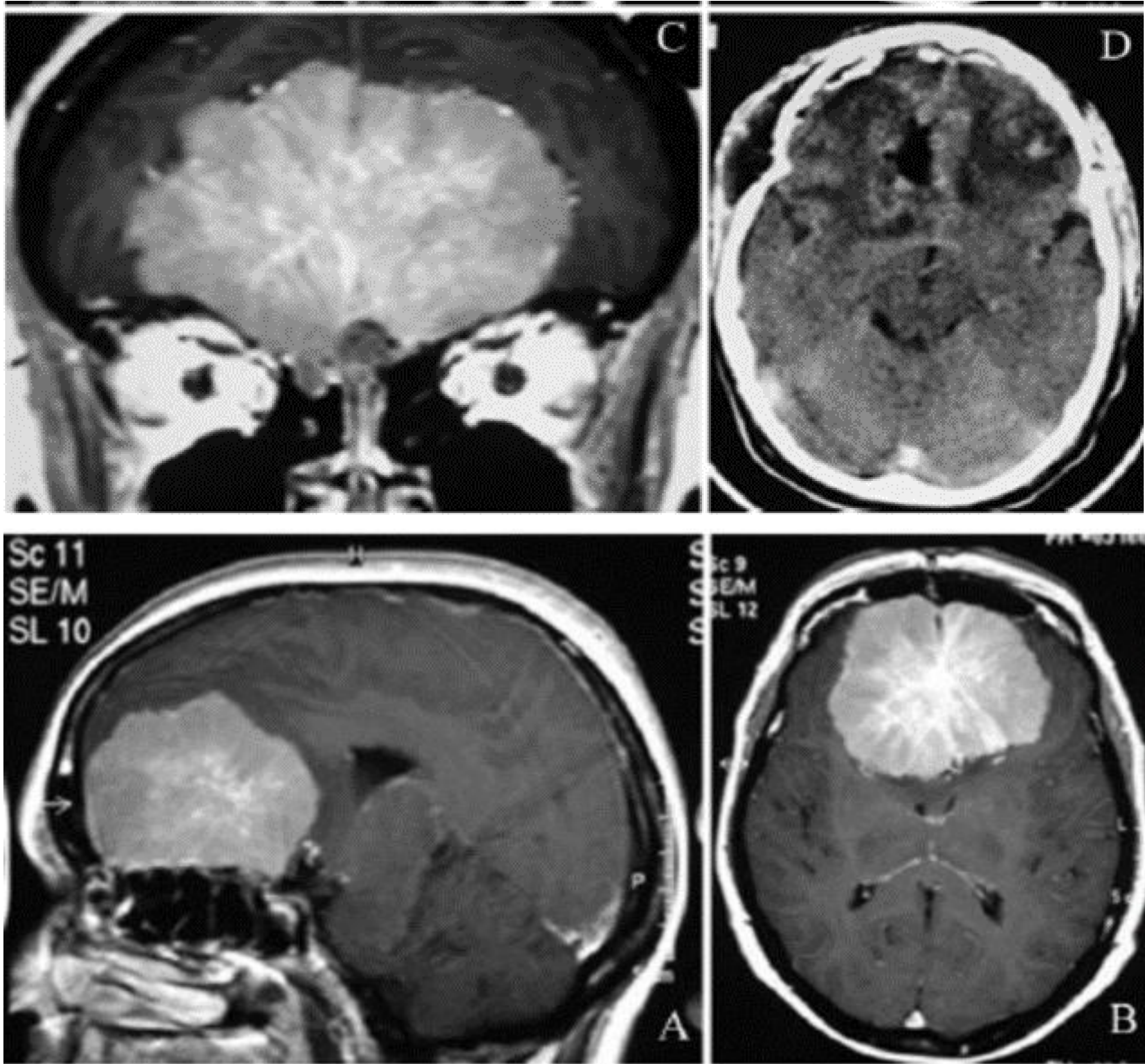
This is A retrospective study conducted at a major medical center. This study included all the patients with Giant olfactory meningioma (more than 6 cm in diameter) who underwent surgery over a 22-year period (January 2000 to December 2022). Long-term outcome including visual status, recurrence and functional status were collected. Multivariable logistic regression was used to identify predictors of recurrence and functional outcome.

Results

Thirty two patients met the criteria and included in this study with mean age of 55.8 years, and the majority (71%) were female. These patients were followed for mean of 62 months. Most of our Giant OGMs reported as WHO grad 1 (84.4%). The improvement of visual acuity and visual field deficits was observed in 19 patients after surgery. Recurrence was observed radiologically in nine patients (28.1%) at mean of 56 months follow up. Only 3 required reoperations for tumor resection. One patient had brain abscess following rhinorrhea and required surgery. Multivariable analysis identified age, Simpson grade of excision, and WHO grading of tumor were the factors that significantly affected the recurrence rate.

Conclusions

This study showed that visual deficits and functional outcome will improve in patients with Giant OGMs after the surgery. The post operative outcome was strongly predicted by factor like patient age, extend of resection and histological status. Building a new predictive scale based on these parameters appears to strongly predict the Giant OGMs outcome.



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