

Pituitary tumour presenting with trigeminal neuralgia as an isolated symptom

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Abstract

Invasion of the cavernous sinus by pituitary adenoma may cause involvement of cranial nerves III, IV, V and VI. However, trigeminal neuralgia as an isolated, initial symptom is very unusual. A patient with a pituitary adenoma, who had intractable trigeminal neuralgia as the only complaint which resolved following surgical removal is presented.

Key words: *Cavernous sinus invasion, pituitary adenoma, trigeminal neuralgia.*

Introduction

Headache is a common symptom of pituitary adenomas.¹ However, trigeminal neuralgia is very unusual and indicates invasion of the cavernous sinus.² Trigeminal neuralgia is commonly caused by compression of the fifth nerve root entry by blood vessels, aneurysms, arteriovenous malformations or arachnoid adhesions.³ In Bullitt's series of 2000 patients of trigeminal neuralgia, only one case was caused by a pituitary adenoma.⁴ Among 532 pituitary adenomas operated in our department, this patient was the only one who had trigeminal neuralgia.

Case report

A 24-year-old man presented with severe paroxysmal shooting pain lasting 15–30 seconds in the distribution of the ophthalmic and maxillary branches of the left trigeminal nerve, 20–25 per day, twice a week. There was no response to a daily dose of 1200 mg carbamazepine. The patient had an acromegalic appearance. Neurological examination was normal. Magnetic resonance imaging demonstrated a pituitary macroadenoma with a left cavernous sinus invasion (Fig. 1). On endocrine evaluation, only a mild hyperprolactinaemia (47 ng/ml) was noted, GH: 0,5 ng/ml (0–5), IGF-1: 1 U/ml (0,45–2,2), PRL 47 ng/dl (0–15), T3 1,36 ng/dl (0,8–2), T4 6,2 micg/dl (4,8–12), TSH 0,8 micU/ml (0,5–3,5), Cortisol (8 AM) 17,6 micg/dl (9–27), FSH 2,7 mIU/ml (5–25), LH 5,6 mIU/ml (6–30). In spite of the clinically acromegalic appearance of the patient GH and IGF-1 values were not elevated. The patient underwent transsphenoidal selective adenomectomy.

Histological examination confirmed a pituitary adenoma with positive staining for growth hormone and prolactin. In the postoperative period attacks of trigeminal neuralgia did not occur and carbamazepine

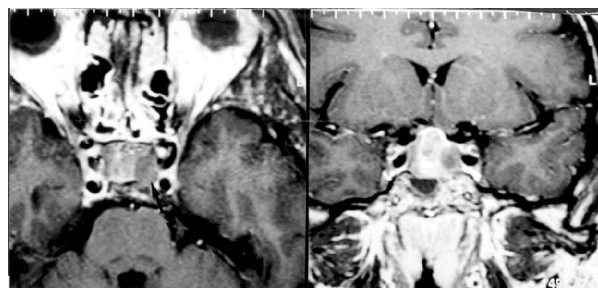


FIG. 1. Axial and coronal magnetic resonance imaging sections of sellar region, showing pituitary non-homogeneous macroadenoma with suprasellar extension, showing left cavernous sinus involvement (arrow).

therapy was discontinued. The attacks had not returned in the follow-up period of 2 years.

Conclusions

We preferred the transsphenoidal route for this patient because even adenomas invading the cavernous sinus medial to the carotid artery can be totally removed via the transsphenoidal approach.⁵

Neuroradiological examinations are mandatory in patients with intractable trigeminal neuralgia.

References

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