

PITUITARY ADENOMA: RETROSPECTIVE STUDY AND ANALYSIS OF FACTORS THAT AFFECT THE OUTCOME OF SURGICAL TREATMENT

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Abstract

Background: Pituitary adenomas are benign epithelial tumors, representing about 10% of intracranial tumors. They present as visual or hormonal disturbances or both. Attention to details in the treatment of these benign tumors can't be overemphasized in order to achieve best results.

Objective: The aim of this work is to review the clinical and radiological features of these relatively common tumors, and identify factors that affect the outcome of surgical treatment and recurrence.

Methods: This study was carried out retrospectively by reviewing the medical records of all patients with pituitary adenomas treated in the period of four years, and collecting clinical, radiological, laboratory, and surgical data. Follow up of 1-4 years was obtained on all patients.

Results: There were 55 patients (31 male and 24 female) the median age was 37 year. The main presenting symptoms were visual deterioration in 49%, symptoms of endocrine disturbance in 35.3%, headache in 14.5%, behavioural changes in 1.8% and seizure in 1.8%. The most common hormonal disturbance was hyperprolactinemia (32.7%). Lateral skull x-ray showed grade III sellar enlargement with erosion of the dorsum sellae in 87.2%. Brain CT scan

showed isodense mass in 76% of cases, with suprasellar extension in 82.6% and contrast enhancement in 85.7%. The operative approaches were right subfrontal craniotomy in 83.6% and trans-sphenoidal (sub labial) approach in 16.3%. Intracapsular (subtotal) removal was achieved in 70.9%, while capsular (total) removal was achieved in 29.1%. Tumour recurred in 3 patients; two of them had postoperative radiotherapy and all had originally aggressive tumors.. There were 2 cases of post radiation glioma.

Conclusion: The results of the study were similar to those published. Pituitary adenoma is usually benign relatively avascular soft in consistency with characteristic clinical and radiological features. Unless associated with advanced optic atrophy with visual loss there is dramatic improvement of optic nerve function following surgery. Transient diabetes insipidus is the commonest postoperative complication mainly following trans-sphenoidal approach. The only factor that enhances recurrence is tumour aggressiveness. Postoperative radiotherapy is only indicated for aggressive invasive pituitary adenoma.

Key words: Pituitary, Adenoma, Outcome.

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Introduction

Pituitary adenomas are common benign epithelial neoplasms that are composed of and derived from adenohypophysial cells. They represent about 10% of intracranial tumors^[1]. In most cases

they are histologically benign, slow growing small neoplasms confined to the sella tursica. Some however grow faster, invading surrounding tissues, and cause local symptoms such as visual disturbances, headache, and compression of non tumorous pituitary tissue, resulting in varying degrees of hypopituitarism^[2].

Pituitary adenomas can be classified according to their size, radiographic appearance, endocrine function, morphology, and cytogenesis. Neurosurgeons frequently classify pituitary adenoma on the basis of size

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