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Giant Prolactinoma –A Case Report

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Abstract **Case Report**

Nonfunctioning pituitary tumors though detected frequently, they are diagnosed late when they grow large in size producing pressure effects and compression syndrome as headache, visual disturbances and hypopituitarism. These tumors can reach enormous size and infiltrate adjacent structures like brain tissue, dura, sphenoid bone and cavernous sinus. We report a case of Giant Prolactinoma in a fifty years old postmenopausal patient.

Keywords: Prolactinoma, Giant, Hypopituitarism.

INTRODUCTION

Prolactinoma is a benign pituitary neoplasm which comprise 40% of pituitary tumors [1].

These tumors exhibit lactotrophs which secrete excess prolactin resulting in hyperprolactinemia. We report a case of Giant Prolactinoma to emphasis its mass effect.

CASE REPORT

A 50 years old female patient presented with headache and visual disturbances since 3 weeks. Patient had history of hysterectomy 10 years back. MRI revealed a large well defined sellar and suprasellar mass producing mass effect on optic chiasma with further extensions (Fig-1).

Hormonal status of patient was done. Prolactin levels were 47.14 ng/ml (4.79-23.30 ng/ml).

FSH levels, Serum Cortisol levels and Growth Hormone levels were 3.86 IU/L (25.8-134 IU/L), 0.77um/dl (4.30-22.4 um/dl) and <0.05 ng/ml (0.02-18ng/ml) respectively.

The tumor was partially excised to reduce the mass effect and sent for histopathological diagnosis.

Histopathological Examination

The tumor was received in a form of multiple grey white soft tissue bits aggregate measuring 4.7 x3 x 3 cm and weighs 50 gms (Fig-2). Histopathological examination revealed bits of tumor tissue composed of uniform round to polygonal neoplastic cells arranged in sheets and cords with round regular nuclei and scant to moderate eosinophilic cytoplasm. Focal areas revealed microcysts and calcification (Fig-3). Considering these features the diagnosis was given as Giant Prolactinoma.

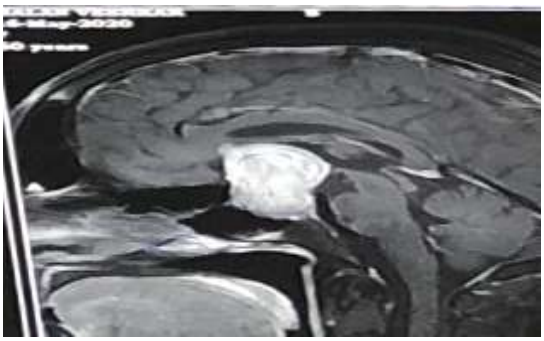

Fig-1: Large well defined sellar and suprasellar mass

Fig-2: Gross examination. Multiple grey white soft tissue bits of tumor

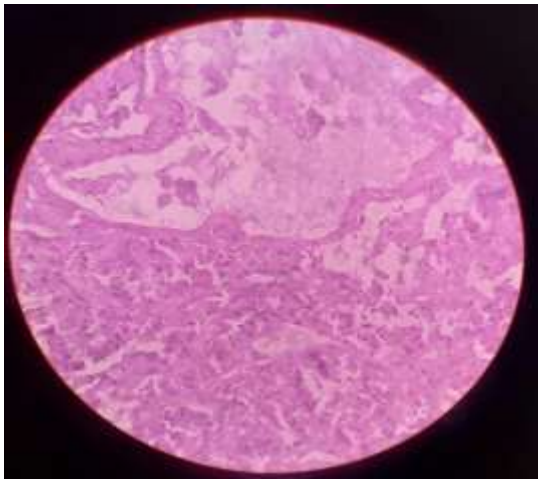

Fig-3: Neoplastic cells arranged in cords and microcystic areas (100X H &E)

DISCUSSION

Pitutary adenoma represent 10-15 % of all primary brain tumors [2]. Although benign, some tumors can produce mass effect because of their size such as headache, visual disturbances and impaired pituitary function such as hypopituitarism [3]. Our case also presented with similar clinical features. Prolactinomas are benign pituitary tumors accounting for 40% of pituitary tumors. They can be microadenoma (<10 mm diameter) or macroadenoma (>10 mm diameter). Most of them are intrasellar, in few cases, they invade surrounding structures. They are called giant when >30 mm suprasellar extension is seen [4].

Our case also revealed a large tumor producing mass effect compressing optic chiasma. Prolactinomas secrete excess prolactin resulting in hyperprolactinemia. Increase prolactin levels lead to gonadal dysfunction, infertility, amenorrhoea and galactorrhea. Large prolactinomas cause compression of adjacent pituitary tissue and hypopituitarism [5, 6]. Postmenopausal women often do not present with these typical symptoms but rather of symptoms of mass effect with large tumors [7]. Similar observation was seen in our case.

The diagnosis of prolactinoma requires endocrinological investigations with evidence of hyperprolactinemia and radiologic evidence of pituitary adenoma [8]. Transsphenoidal resection is the treatment of choice for large prolactinomas. These tumors may recur after surgery hence proliferative markers like Ki67 and hormonal status are useful for follow up. Ki67 and P53 are referred as indicators for aggressive behavior [9, 10].

Although medical management plays role in the treatment of some functioning adenomas, this is not helpful for non functioning tumors.

CONCLUSION

Prolactinomas are pituitary adenomas which cause hyperprolactinemia. They can be microadenomas or macroadenomas. Giant Prolactinomas produce mass effects and surgical removal is the treatment of choice. Ki67 & P53 are useful prognostic markers for aggressive behaviour and recurrence.

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