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Rapid Visual Improvement After Cabergoline Therapy in a Macroprolactinoma Case

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Abstract

Introduction: Medical therapy with dopamin agonists (DAs) is the first treatment of choice for prolactinomas. no matter how large or how severe the neurologic sequelae and cabergoline (CAB) is the best initial choice (1). We present a giant prolactinoma case with visual loss that showed a significant improvement after CAB therapy.

Case Report: A 45-year-old male patient was admitted to hospital due to bilateral impaired vision. Magnetic resonance imaging (Figure 1) revealed a pituitary giant adenoma of 6x5cm in diameter invading the bilateral cavernous sinuses and extending into the suprasellar region. and compressing the optic chiasm. Visual field test (VFT) revealed bilateral near-total visual field deficit. The pituitary profile (Table 1) was remarkable for central hipothyroidism and hypogonadotropic hypogonadism but there was no secondary adrenal failure and the prolactin (PRL) level was 19216 ng/mL. Cabergoline treatment was started with dose of 1mg/week. Fifteen days later. VFT showed a significant improvement both at the left and right eye (Figure 2) when compared with pre-treatment and PRL levels were normalised. At the 2-month follow-up. the patient is stable.

Discussion: Macroprolactinomas may manifest by visual disturbance due to mass effect especially at men (2). CAB is currently the cornerstone of medical therapy as it is effective in controlling clinical symptoms. reducing PRL levels and shrinking tumor size (1). Severe bilateral visual impairment may be a mind-boggling condition but as in our case. CAB is effective in the management of neuro-ophthalmic complications. Also. to protect the hypophysial functions and avoid the postoperative complications. CAB should be considered as first choice therapy instead of surgery in these tumors.

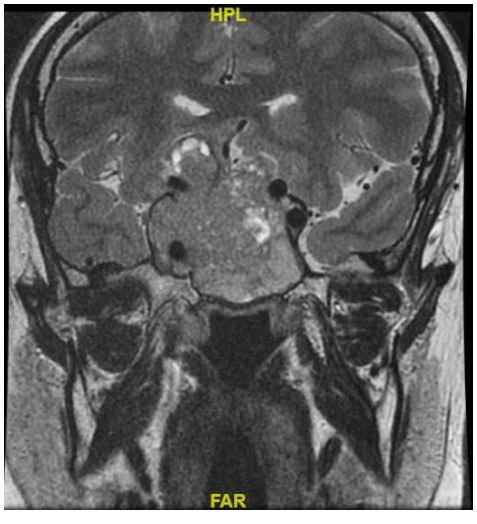

Figure 1: Sella MR.

Table 1

Biomarker	Value	Normal references
Prolactin	19216 ng/mL	3-19
GH	0.08 ng/mL	0.06-5.00
IGF-1	44.9 ng/mL	81.0-225.0
ACTH	14.1 pg/mL	5-46
FSH	0.4 mIU/mL	0.95-11.95
LH	0.26 mIU/mL	0.57-12.07
Serum cortisol (AM)	7 µg/dL	3.7-19.4
Total serum testosterone	0.14 ng/mL	2.2-7.15
TSH	1.77 µlU/mL	0.350-4.940
Free T4	0.4 ng/dL	0.70-1.48

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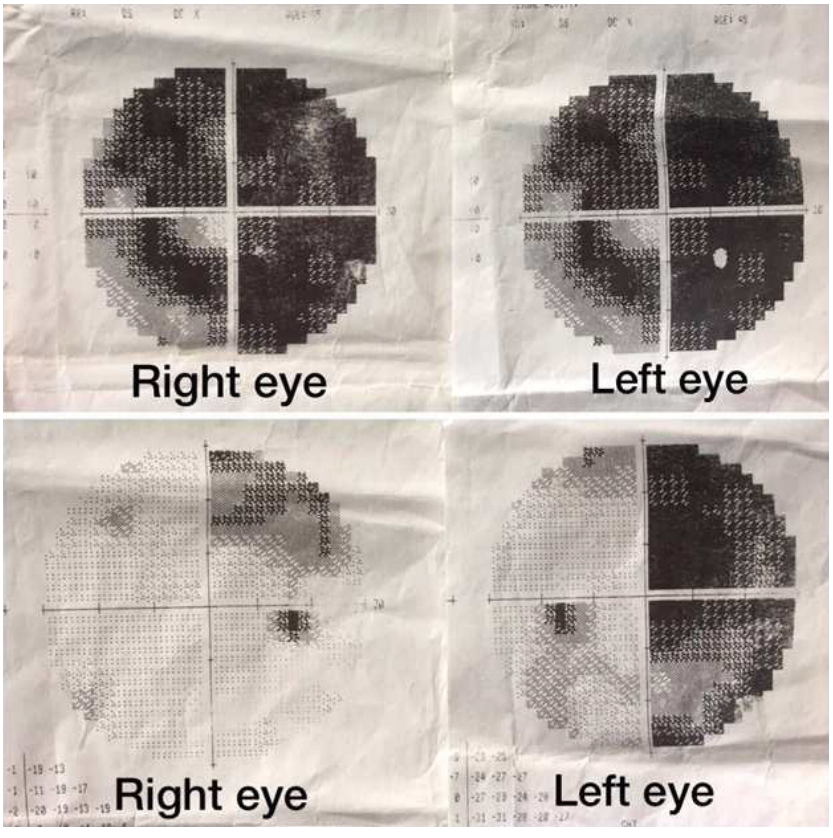

Figure 1: Visual field test. Comparison between initial visual field testing and post-treatment visual field testing. (a) Initial visual field test showing bilateral total visual field deficit. (b) the visual field of the right eye was completely normalized. and deficits remained only in the temporal part of the left eye.

References

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