

Pituitary Macroprolactinoma with Complete Tumour Shrinkage on Medical Therapy: A Case Report

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Abstract

Background: Prolactinomas are rare, occurring with an annual incidence of about 30 per 100,000 persons. The female-to-male ratio for microprolactinomas is 20: 1 but for macroadenomas it is roughly 1: 1. Tumour size correlates with serum prolactin (PRL) levels and men tend to harbor larger tumours. They usually present with features associated with either hyperprolactinemia, tumour size or invasiveness.

Methodology: The case notes of a patient with pituitary macroprolactinoma and the literature was reviewed.

Results: Patient was a 34yr old male with 2-year history of low libido, erectile dysfunction and infertility. There was no galactorrhoea, headaches, visual impairment nor seizures. Anthropometric indices: Height-173cm, Weight-92kg, BMI-30.7 kg/m², Waist Circumference-104cm, Arm span-181.8cm. Had male pattern hair distribution, normal phallus, testicular size 25ml bilaterally. PRL:73,585 uIU/ml (86-324), testosterone: 1.15 ng/ml (2.8-8.0), FSH:5.130 mIU/ml (1.5 - 12.4), LH: 4.15 mIU/ml (1.7-8.6), serum cortisol:149 nmol/L(240-618), ACTH:10.5 pmol/L (1.6-13.9), TSH = 3.384 mIU/L (0.380-5.330), FT4= 8.4 pmol/L(7.2-16.4). SFA- sperm count 10 million/ml, MRI Brain: Pituitary Macroadenoma with mass effect. Visual field: bitemporal hemi-anopia.

He was commenced on 2.5mg bromocriptine, titrated up to 20mg nocte for 6 weeks then changed to Cabergoline 0.25mg twice weekly for 2weeks, then 0.5mg twice weekly. Tabs Hydrocortisone 10mg am, 5mg pm. Two months after, PRL dropped to 216 uIU/ml, libido and erection improved. At 4 months, SFA: sperm count increased to 20 million/ml, PRL: 12.3 ng/ml (3.6-16.3), TSH- 2.22 (0.32-5.0). Brain MRI: Empty Sella, cortisol profile 8 am- 448.9 nmol/L, 2 pm- 191 nmol/L, 6 pm- 306.1 nmol/L (171-536). Testosterone: 4.03 (2.8-8.0) and visual field improved.

Conclusion: Macroprolactinomas are sensitive to medical therapy leading to normalization of prolactin level, tumour size reduction, reversal of sexual dysfunction, improvement in sperm parameters and visual field.

Key words: Pituitary Macroprolactinoma, Sexual Dysfunction, Cabergoline, Prolactin.