

A Pituitary Macroprolactinoma in an Oestrogen-treated Transsexual Patient

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Objective: To describe the case of a male-to-female transsexual patient on long term ethinyloestradiol therapy, who presented with a pituitary macroprolactinoma.

Methods: A case history, including results of laboratory tests and radiological findings are presented; treatment is discussed.

Case Summary: We present a 69 year old male-to-female transsexual patient who was admitted with sudden onset of double vision. She also complained of weight gain and persistent lethargy. She had been taking ethinyloestradiol 50mcg/day for thirty years. On examination she had a right side third nerve palsy with no visual field defects. Her prolactin level was around 40,000 mIU/L. Gonadotrophin levels were suppressed. Secondary hypothyroidism was also diagnosed at the time. An MRI scan of the pituitary showed a large pituitary adenoma which invaded the cavernous sinus on the right hand side and abutted on the chiasm. She was started on cabergoline 0.25mg twice/week and levothyroxine 50mcg/day. There was an immediate response in prolactin levels which decreased to 6477 mIU/L after only 10 days. An abnormal low dose dexamethasone suppression test was attributed to the oestrogen effect on cortisol binding globulin. Cessation of oestrogen treatment and repetition of the test confirmed this assumption. Her third nerve palsy resolved and an MRI scan performed four months later showed an appreciable shrinkage of tumour with no significant amount of tumour in the chiasmatic cistern and in the right cavernous sinus. Her prolactin level normalised. The patient refused to stop her ethinyloestradiol and, notwithstanding her age, insisted on having surgery for complete male to female sex re-assignment. Cosmetic genoplasty was performed two years later. After five years her prolactin has remained suppressed on cabergoline and her tumour has never increased in size. She has developed hypertension and cerebrovascular disease, and is on transdermal oestrogen having lower doses. She continues to describe her quality of life as excellent. (QoL AGHDA = 0)

Conclusion: High-dose oestrogen therapy in male to female sex re-assignment may result in prolactinomas. This case illustrates that oestrogen-induced prolactinomas are readily treated by dopamine agonist therapy. It is of interest that a patient over 60 years still wished for and was satisfied with surgical sex re-assignment and this allowed a reduction in oestrogen dose.