

A 60 year old woman presenting with bitemporal hemianopia

M Allum

Northwick Park Hospital, Watford Road, Harrow

Case History:

A 60 year old woman with failing vision had to stop driving at night as she became unable to see the edge of the road. Visit to the optician found bitemporal hemianopia and she was referred to ophthalmologist who performed an MRI scan which showed pituitary macroadenoma and she was subsequently referred to the endocrine clinic for assessment. Clinical assessment revealed no history of endocrine symptoms, no headaches. Past medical history was of hypertension and cholecystectomy and her only medications were losartan and bendrofluazide. Visual fields examination suggested bitemporal hemianopia crossing the midline on the right. She had no relevant family history.

Investigations and method:

Endocrine assessment in endocrine clinic. Pituitary function tests, namely TFT, IGF1, FSH, LH, Prolactin and Cortisol in addition to routine blood work. Dedicated MRI of the pituitary and Goldman visual fields.

Results and treatment:

Pituitary function normal although IGF1 just below normal and FSH,LH low for woman of her age. Goldman perimetry confirmed severe bitemporal deficit and MRI demonstrated large pituitary tumour with suprasellar extension displacing the chiasm. She was referred urgently for trans-sphenoidal surgery. Operation was performed without complication and with immediate improvement in vision. Post-operative morning cortisol levels (days 3 and 4) allowed her to be discharged home with PRN hydrocortisone.

Histology revealed a pituitary adenoma with negative immunohistochemical staining for ACTH, GH, FSH, HCG, LH, TSH prolactin and pan-alpha-subunit. Ki67 labelling index was 3%.

Conclusion and points for discussion:

In this case the pituitary tumour produced no endocrine symptoms, but was threatening a total loss of vision. While urgent surgery was necessary to prevent blindness, the significant endocrine risks then include the possibility of developing hypopituitarism. Continued endocrine follow-up was required post operatively to watch for diabetes insipidus and test for sufficient cortical reserve. Dynamic testing by insulin stress test was then planned after 6 weeks to assess for growth hormone (with AGHDA questionnaire) and cortisol reserve after repeat anterior pituitary profile, with interval scanning of the pituitary to monitor for recurrence initially to be done at 3 months.

How often should the patient be seen in endocrine clinic for follow-up? When should dynamic testing be repeated? How useful is the proliferation index Ki67 in predicting recurrence and should this be used in planning follow up, say, do determine the frequency of interval scans?