

Case notes

Pituitary tumour

Patient details

Initials: MS

Age: 58 years

Gender: Female

Reason for visit: Vague symptoms of reduced vision at distance and near RE & LE; feels seeing too few or too many letters on the page when reading

Refraction: RE: +0.50/-0.25x175

LE: +0.75/-0.50x5

Distance Acuity: RE: 6/12, LE 6/24

Reading add: RE & LE: +2.25D

Near acuity: RE: N6, LE: N8

General health: No previous problems

Medication: HRT

Ocular history: Lasik RE & LE 10 years ago

Examination

Slit lamp & undilated Volk Superfield

Right eye	Structure	Left eye
Normal	Lids & lashes	Normal
Lasik flap scar	Cornea	Lasik flap scar
Grade 4	van Herick	Grade 4
Nuclear sclerosis	Lens	Nuclear sclerosis
C:D 0.40	Disc	C:D 0.40
Healthy	Macula	Healthy
No holes/	Periphery	No holes/
tears/detachment		tears/detachment

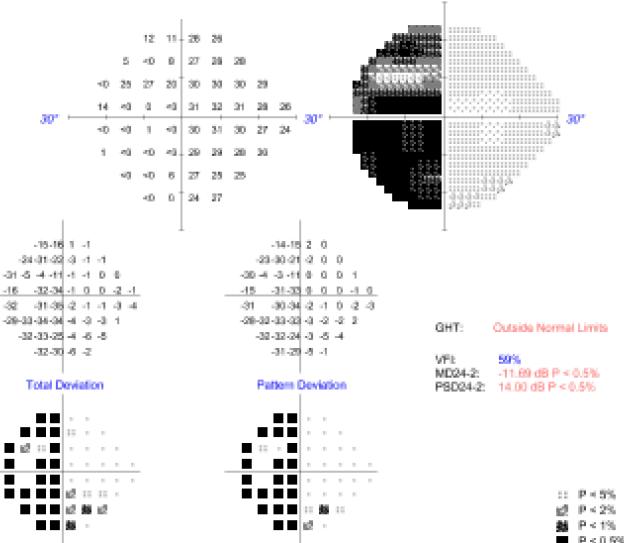
NCT (mean of 3 readings)

17mmHg @14:30 15mmHg

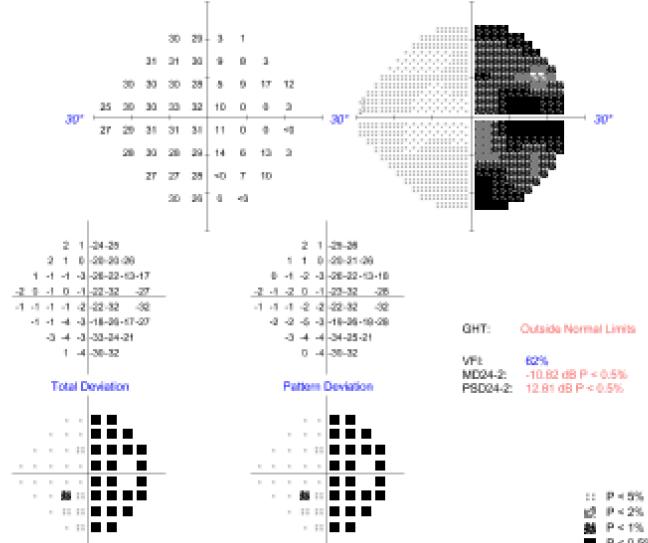
Ishihara Colour Vision

16/17 correct 6/17 correct

Visual field LE



Visual field RE



Discussion

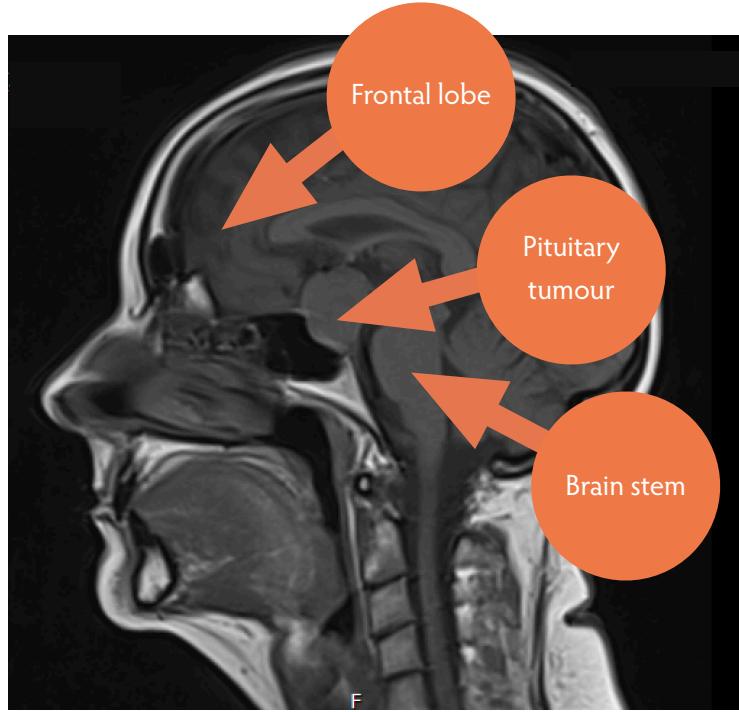
MS had cataract in both eyes and also had corneal scarring due to her previous refractive surgery. Consequently, her bilateral reduced acuity could have been attributed to either one or both of these factors. However, on hearing her unusual visual symptom of seeing that she saw too few or too many letters on the page whilst she was reading, MS's optometrist performed a visual field test and discovered that she had a bitemporal hemianopia.

Ophthalmoscopic assessment of MS's optic discs did not show any abnormalities: she had healthy neuro-retinal rims and there was no suggestion of papilloedema, as the optic disc margins were not raised. Therefore, the only clinical finding that indicated that there was a significant abnormality present was the visual field test.

The optometrist made a referral and arranged for MS to be examined by a neuro-ophthalmologist within 1 - 2 weeks.

Diagnosis

MS underwent an MRI scan and was diagnosed with a pituitary tumour (macro adenoma).



Clinical assessment

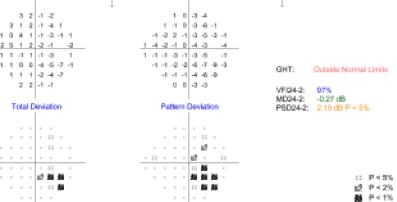
For patients with suspected neurological disease, consider assessing the patient's visual acuity, pupil reactions (including relative afferent pupil defect), monocular colour vision, visual fields, ocular motility and optic discs.

Management

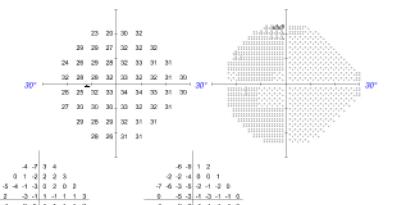
MS had her pituitary tumour surgically removed. Immediately after surgery, she commented that she felt that her visual acuity had improved. Three months post-operatively, her acuities were RE: 6/9 and LE: 6/12. Her colour vision returned to normal and she saw 17/17 Ishihara plates with each eye. Her visual fields recovered to a remarkable degree, although there was a subtle residual defect in each eye.



Right eye



Left eye



Learning points

Patients who have space-occupying lesions within the visual pathway can present with a wide variety of visual symptoms. In addition to reduced acuity, reports have included symptoms such as '*pixelated vision*' and '*looking through cellophane*'. Some patients complain of difficulties when reading, even if they have N5 acuity in each eye, which is likely due to retinal slip because of the visual field defect. Such symptoms should always be treated with suspicion and a visual field test performed.

Acknowledgment

Ms Katherine Smyth, Consultant Ophthalmologist, Bolton NHS Foundation Trust