AN UNDIFFERENTIATED PITUITARY ADENOMA OF UNUSUAL SIZE

REPORT OF A CASE

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In a recent issue of the Journal of Neurosurgery, in the course of a discussion on the modes of extension of pituitary tumours (White and Warren23), there is a report of a case of an unusually large tumour of pituitary origin. Shortly after receipt of this report, the writers encountered a large tumour arising from the pituitary body, but extending laterally rather than anteriorly. In addition, its histological structure was of a unique type, as it was composed of remarkably undifferentiated pituitary cells. For these reasons, the case was considered worthy of reporting as an interesting corollary to the case of White and Warren.

CASE REPORT

The patient (No. 2207), a male lithographic grainer aged 31 years, was admitted to the Department of Neurosurgery, Royal Prince Alfred Hospital, on 16th July, 1946, complaining of headaches and deterioration of vision.

Anamnesis. His symptoms began in December, 1944, when episodic headache developed which, beginning in the left supra-orbital region, radiated backwards along the left side of the head to the occiput. There was no associated nausea or vomiting. Three months later he noticed deterioration of vision in the left eye, associated with visual hallucinatory attacks, during which he saw small scintillating objects in front of his left eye. He also experienced difficulty in seeing objects approaching him from his left side.

During the past 10 years his weight had steadily increased, with the development of obesity particularly in the lower abdomen and pectoral regions. His skin had become paler, but there had been no change in the distribution or texture of his cranial or body hair. He became rather sensitive to warm weather, and perspired profusely while working. There had been no real polyuria or polydipsia. There had been no alteration in his sleep rhythm, although he had always been a rather lethargic individual.

He had had little inclination to sexual activity until recently, and, although married 7 years, he had only lately commenced to take a marital interest in his wife. She was, at the time of admission, pregnant for the first time. He had never been impotent, but lacked the usual sexual drive.

There were no other abnormal symptoms.

Physical Examination. The patient was rather an obese man, looking younger than his stated age. His height was 5 feet 11 inches and he weighed 14 stone 7 lbs. The obesity was mainly of rhizomelic distribution, and linea distensae were apparent on the lower abdomen and flanks. The skin was pale and somewhat waxy in appearance, and the pubic hair was sparse and tended towards a female distribution. The penis and testes were smaller than normal for a man of his age. The mental state was normal, and the patient was alert and cooperative.

Olfactory sensation was unimpaired. In the left eye there was light perception only, while the visual acuity on the right side was 6/6. The right visual field contained a defect in the upper nasal quadrant, spreading down into the lower nasal quadrant (Fig. 1). Marked optic atrophy was present in the left optic disc; on the right there was a mild grade of papilloedema.

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The pupillary reactions were normal, and no dysfunction of the remaining cranial nerves was present. Muscle power was satisfactory in all limbs. There was no impairment of co-ordination, and the gait and station were normal. All modalities of sensation were intact. The superficial and deep reflexes were all present, and rather brisk. Blood pressure was 140 mm. Hg. systolic and 90 mm. Hg. diastolic. The blood count was within normal limits, and the Wassermann and Kline reactions were negative. The basal metabolic rate was −12 per cent, with a resting pulse rate of 72 per minute.

Plain radiography of the skull disclosed gross enlargement of the sella turcica, with dislocation upwards and forwards of the left anterior clinoid process. No pineal shadow was visible. Lumbar puncture produced clear cerebrospinal fluid at a pressure of 240 mm. of water, containing a normal amount of protein and no increase in cells. The Wassermann and Kline reactions were negative, and the Lange colloidal gold curve read 1122300000.

**Operation.** It was considered that this was a case of adenoma of the pituitary of chromophobe type, with parasellar extension on the left side, and it was decided to proceed directly to operation without preliminary ventriculographic studies.

On 20th July, under local anaesthesia, a curved incision was made in the left frontal region of the scalp, and a quadrilateral osteoplastic flap was turned down from the left frontal bone, hinged on the left temporal muscle. The dura mater was not unduly tense, and, after incising it, the left frontal lobe was elevated until the lesser wing of the sphenoid was visualised. This disclosed the left optic nerve, and a tumour below and medial to it. The nerve was discoloured at the site where it was compressed by the tumour, which was soft, bluish in colour, and measured about 4 cm. by 2.5 cm. in its visible portion. It also extended somewhat to the right, and was compressing the right optic nerve and the anterior aspect of the optic chiasm.