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REVIEW OF 50 CASES OF PITUITARY ADENOMA  
TREATED BY SURGERY.

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This is a brief review of 50 consecutive cases of pituitary tumours submitted to operative treatment in the last 10 years. All these patients were operated by one surgeon (N.O.A.). Suprasellar cysts, suprasellar meningiomas and epidermoid cysts are not included. Only those patients with definite and marked visual field disturbance were accepted for surgery. The others were treated by radiotherapy alone. Unfortunately many of the patients on admission had severe visual deficit, often blind in one eye and little vision in the other.

There were 23 males and 27 females in the series. Their ages varied from 15 to 58 years. There were only three cases older than 50. In this series there were only five cases with eosinophil tumours. The rest were chromophobe adenomas. There were 3 cases with huge extrasellar extension one in the left anterior fossa, and two in the middle fossa. The case with the anterior fossa extension will be briefly described as he had some unusual features.

A conscript soldier aged 21. with obvious gigantism was admitted for investigation of epileptiform attacks. A month before admission whilst swimming had a fit which nearly caused his death. Since then he had 3 more major attacks. Vision left eye was down to hand movements. Right eye vision was normal with no field defect.

Fundi showed papilloedema on the right and optic atrophy in left (Foster-Kennedy Syndrome).

X-ray of skull showed a large sella turcica. E.E.G. demonstrated a left frontal focus. Left carotid angiogram showed a large mass in the left anterior fossa.

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With a diagnosis of left anterior fossa extrasellar extension of pituitary tumour, through a left frontal flap a large tumour was removed piecemeal and by suction. Histology confirmed the diagnosis of an eosinophil adenoma.

Post-operatively he was treated by radiotherapy.

Destruction of the floor of sella turcica causing epistaxis or meningitis has rarely been reported. We have had one case, a man 22 years old who was admitted with meningitis. On examination he had bilateral optic atrophy. X-rays skull showed a large sella turcica. After treating the meningitis he was submitted to operation. Post-operatively for about a month he had C.S.F. rhinorrhoea, which fortunately cleared up spontaneously.

12 cases (24%) of the tumours were cystic. Only in one case with sudden deterioration of vision there was bleeding into the cystic cavity.

In another case not included in these series (as he did not have an operation) he was admitted for a subarachnoid hemorrhage and a right 3rd. nerve paralysis. X-rays of skull showed moderately enlarged sella. Repeated angiograms were negative. Mr. Murray Falconer kindly saw the case in London and agreed with the diagnosis of hemorrhage from a pituitary tumour. Patient was treated by radiotherapy. He has been followed up for 3 years, and is still free of symptoms.

In one case aspirated substance from a cystic tumour looked very much like pus. This was probably due to grey infarct of the tumour.

We have seen 3 cases not included in this series, which had large sella turcica, with visual field defects; at operation we were surprised to find large 'empty' pituitary fossas. This is thought to be absorption of a tumour after an infarction. In one case we should have suspected such a pathology as there had been no deterioration in visual acuity and visual fields for 3 years. In one of these cases the condition probably had an infectious origin. He was a young man of 23 who had a history of brucellosis for 6 months prior to onset of visual disturbance. Plain X-rays of skull showed a large sella. At operation sella was found to be filled with an arachnoidal cyst. Patient's vision improved following the operation. 14 months later he was readmitted, this time for bilateral deafness. Posterior fossa was explored and bilateral cerebellar pontine arachnoid cysts were evacuated. This time there was no improvement in his hearing.

#### Operation.

All the 50 cases of pituitary adenoma were operated through a frontal flap. The side with maximum visual disturbance was chosen, other-

wise the right flap was preferred. The mass was always aspirated through a needle first to exclude aneurysm. Then an opening made in the capsule and the contents aspirated. No attempt is made to remove the capsule. Some pieces are removed by rongeur for biopsy.

All these cases were submitted to a full course of radiotherapy after operation.

In two cases with signs of raised intracranial pressure and internal hydrocephalus, a preliminary Torokildson procedure was carried out two weeks before the main operation.

#### Results.

We have had only one mortality in this series and that was a case with a right middle fossa extension. As far as vision is concerned results have been satisfactory. So far we have had one recurrence that needed a second operation.