ANGIOID STREAKS IN PITUITARY TUMOUR*

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IN recent years there have been many references to angioid streaks of the retina found in association with pseudoxanthoma elasticum and Paget's disease of bones (Elwyn, 1953; Cowper, 1954; Bedrossian, 1958; Hogan and Zimmerman, 1962).

A review of the current literature on angioid streaks and on brain tumours revealed no cases of angioid streaks in patients who presented with ocular manifestations of brain tumour. This case is therefore reported because of the rarity of this combination.

Case Report

A 45-year-old Negro male had no knowledge of any eye trouble until 8 or 9 months before admission. At that time he began to have difficulty in seeing to either side. This was drawn to his attention by his friends who remarked that he did not speak to them when he passed them. He had also noticed difficulty in seeing cars approaching him from the sides when driving.

He reported having had dull frontal headaches in the mornings which disappeared as the day progressed. He had seen an optician 3 months previously and had received glasses which "cleared things" when he kept both eyes open, but he still had difficulty reading with one eye closed.

Examination.—The visual acuity was 20/200 in each eye, and 20/40 + with -1.75 D sph. in the right eye and -1 D sph. in the left. The visual fields revealed a bitemporal hemianopia centrally; the peripheral fields were full and no scotoma was found.

There was no evidence of optic atrophy or papilloedema. The disc margins were clear. There was some pigmentation around the nasal border of the disc, more prominent in the left eye than in the right. This pigmentation is highly suggestive of angioid streaks (Figure, opposite).

A general physical examination revealed nothing remarkable. There was no other cranial nerve defect at this time.

Skull films—stereo and right lateral—revealed erosion and enlargement of the sella turcica. The posterior clinoid was almost completely destroyed and only a faint rim of its posterior and superior margin remained. A double floor to the sella was seen, and the lesion appeared to be worse on the right side. It should be noted that the anterior clinoids were preserved, which is extremely strong evidence against the condition being due to aneurysm. The appearance was that of a pituitary adenoma.

A right carotid arteriogram suggested that the tumour extended superiorly and laterally. Again no aneurysm was seen.

Serology and urine analysis were normal, as was an endocrine evaluation.

Operation.—On June 13, 1960, a craniotomy and subtotal excision of the pituitary tumour was performed.

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FIGURE.—Fundus photograph showing angioid streaks.

Pathologist's Report.—The microscopic sections consisted of portions of tissue composed of uniform cells with small, dense, round-to-oval nuclei, and faintly granular cytoplasm. The cell margins were cuboidal when clusters of cells were compressed, but when separated no clear margin was identifiable. The cells also had a tendency to appear columnar when lined up around the numerous capillaries traversing the stroma. These appearances suggested a diagnosis of chromaphobe adenoma of the pituitary.

Progress.—After a moderately stormy post-operative course, with a transient left third nerve paresis, radiotherapy was given.

Result.—6 weeks after admission and 4 weeks after surgery the central visual field had returned to normal and the patient made full recovery from the left third nerve paresis.

Follow-up.—The patient has been followed for over 2 years and no residual visual field defect or recurrence of third nerve palsy has been observed. The angioid streaks of the retina are still present.

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