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THYROID CARCINOMA WITH METASTASIS IN THE CILIARY BODY

(Report of a Case)

BY

H. CAMPBELL ORR and I. LLOYD JOHNSTONE

WOLVERHAMPTON

CARCINOMA of the ciliary body is so rare as to be almost a pathological curiosity. When it is secondary to a similar condition of the thyroid gland it must be rare indeed, if not unique. So far as we are able to find, no other case has been published.

Clinically the case here reported presents little of unusual interest. The patient, C. C., male, sixty years of age, came to the Wolverhampton and Midland Counties Eye Infirmary on May 24, 1934, complaining of failing vision of his left eye, first noticed fourteen days previously. His work was that of a coal miner; he was of medium height and rather heavier than normal; his complexion was sallow.

The signs were those of a tumour of the ciliary body on the temporal side and a provisional diagnosis of sarcoma of the ciliary body was made. The left eye was enucleated on June 1, 1934, and sent for examination. The right eye was normal except for hypermetropia, vision 6/18, with 1.5 sphere = 6/6.

The pathologist who reported on the specimen had a difficult task set him. We shall presently acknowledge our debt to him.

Before making a formal report he suggested examination for a carcinoma elsewhere in the body, especially in the alimentary tract. That he was not fully persuaded of the resemblance to intestinal carcinoma appears from the following description of the microscopic appearance of the affected eye:—

Cornea.—Normal.

Iris.—Some lymphocytes and plasma cells seen, collected in nodules within pupillary border.

Anterior Chamber.—Angles free.

Lens.—Clear.

Ciliary Body.—The outer two-thirds, of the ciliary body, on one side, is occupied by a large carcinomatous mass. The cells composing the growth are columnar and the formation is one of multiple papillae. In the majority of these papillae the central core is very slender, and often oedematous, and consists of young fibrous tissue in which are newly-formed blood vessels. Fine pigment is scattered irregularly throughout the growth. Areas of albuminous exudate are present. Many lymphocytes are seen. On the inner side of the ciliary body, *i.e.*, within the eye, is a large oedematous papilla covered by columnar cells similar to those seen on the main mass of the growth. On following this papilla forwards, these columnar cells appear to be continuous with the outer layer of cells covering the normal ciliary processes.

Choroid.—Everywhere congested.

Immediately behind the growth there are massive haemorrhages into the choroidal tissue. Fig. 1 (c). In one spot a sub-choroidal haemorrhage is seen. There are areas of lymphocyte and plasma cell infiltration.

Retina.—Detached. On the side opposite the growth is a large sub-retinal albuminous exudate.

One can see in the description of the ciliary body a definite leaning toward a diagnosis of primary carcinoma. Indeed, two good reasons are adduced against its being a secondary growth.

- (a) The highly papilliferous nature of the growth is unlike any primary carcinoma seen elsewhere in the body except in the uterus and ovary, and this patient is a male.
- (b) The oedematous papilla within the eye, which is almost certainly part of the main mass of the growth, appears to be continuous with the epithelium covering the ciliary processes.

Supposing for the moment that examination had failed to disclose a primary tumour, it is very doubtful if anyone could controvert such argument except, possibly, that it might be asked why the growth occupied "the outer two-thirds of the ciliary body" leaving normal the inner third next to the epithelial layers, from which the growth presumably arose.

FIG. 1. X10

THYROID. Tumour X100

After some difficulty the patient was persuaded to return to hospital at the end of August for investigations. X-Ray examination of the intestinal tract after an opaque meal revealed no evidence of new growth. Dr. J. H. Sheldon suggested that

a hard, fixed lump about the size of a pigeon's egg in the thyroid area of the neck, on the left side, was probably a malignant growth of that gland. The patient said he had known the lump to be there for at least eight years and that it gave him no trouble. X-Ray examination of the chest showed no evidence of disease. Early in September the thyroid tumour was removed and proved to be a columnar-celled carcinoma.

There remains now the necessity to show the relationship between the two tumours. As soon as the thyroid enlargement was

CILIARY. Tumour X100

found one remembered the resemblance of parts of the section of the growth in the ciliary body to thyroid vesicles. When the microscopic section of the thyroid was available for comparison the similarity of the cells in the two tumours left no room for doubt that the intra-ocular one was secondary to the carcinoma of the thyroid gland. The three photo-micrographs serve to illustrate this.

So far as we have been able to ascertain, no case of carcinoma of the ciliary body secondary to carcinoma of the thyroid has been reported till now. Usher (1923) in a long review of "Cases of Metastatic Carcinoma of the Choroid and Iris," mentions three cases in which the seat of the primary growth was the thyroid, but none of these affected the ciliary body.

We wish to acknowledge our debt to Mr. E. F. King for the sections and report on the eye, and to Dr. S. C. Dyke for similar service in respect of the thyroid tumour. To Mr. King should go no small share of the credit for the case, for he has taken great interest in it and the greater part of the work and worry have been his. We also thank Mr. Vincent Patrick for his interest and for removing the primary tumour, and Dr. J. H. Sheldon for the general examination of the patient.

REFERENCE

Usher.—*Brit. Jl. of Ophthalm.*, Vol. VII, pp. 10-54, 1923.

**ATYPICAL RETINITIS PIGMENTOSA ASSOCIATED
WITH OBESITY, POLYDACTYLY, HYPOGENITALISM,
AND MENTAL RETARDATION (THE LAURENCE-
MOON-BIEDL SYNDROME)**

(Clinical and Genealogical Notes on a Case)

BY

L. H. SAVIN

LONDON

ALTHOUGH many cases of this bizarre syndrome have been recorded since the classical paper of Laurence and Moon⁴ in 1866, reports with pedigrees are still sufficiently rare to justify description.

I first saw my patient H. D. through the kindness of Dr. Sharp and Mr. Kelly in 1933 at the Whipps Cross Hospital. He was complaining of night blindness, which, I was told, had first showed itself in 1925, when he was nine years of age. At that time he had been of fair mentality; when seen in 1933 he had degenerated so that it proved impossible to take a visual field on the perimeter, though he could still recognize letters if allowed due time. He was of a gentle, tractable, and friendly disposition, popular in spite of his deficiency with the other patients of his ward. His figure was stout, rather suggesting hypopituitarism, with slight enlargement of the breasts. An X-ray examination of the skull showed a normal sella turcica. His height was five feet, three inches. On the ulnar sides of his hands and outer sides of his feet were operation scars as if for the removal of accessory digits; but he could give no history to confirm this, and at the time it was not known that any relatives still remained alive. The genitals corresponded in development to those of a boy of twelve.