GRANULAR-CELL MYOBLASTOMA OF THE ANTERIOR UVEA*

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THIS paper reports a case of a tumour of the anterior uvea which on histological examination appeared to be a granular-cell myoblastoma. According to Ashton (1964) this is such a rarity in the eye that nothing exactly like it has been previously described in the literature.

Case Report

A 24-year-old white woman was first seen in consultation in September, 1960, complaining of a "little vein" in the nasal side of the sclera of the right eye, which had been growing over a period of three months without symptoms, but three days previously she complained of sudden pain and "severe loss of vision".

Examination.—*Right eye:* A salmon-pink solid mass was seen growing inside the anterior chamber occupying its superior and nasal quadrant (Fig. 1). It seemed to have a tense capsule and was richly vascularized. The pupillary border was displaced to the temporal side. The cornea was clear and the growth was not in contact with its posterior face. The temporal iris was normal, as also were the lens, vitreous, retina, and optic disc. Tension was 8/5.5.

Left eye: Normal.

Operation.—The tumour was removed via an *ab externo* excision with a limbus-based conjunctival flap. Part of the iris was adherent to the posterior face of the tumour and a complete iridectomy was carried out nasally. The tumour was not completely removed and part of it remained in connexion with the ciliary body. The patient recovered very well and the last time she was seen, one year after operation, the eye was completely quiet without any sign of recurrence.

Pathological Examination.—Microscopically the tumour consisted of a solid undifferentiated mass of large polyhedral cells with distinct cell membranes and small round or oval nuclei; some were binuclear. Within the abundant cytoplasm were many coarse, pale, eosinophilic granules. There was no tendency for alveolar grouping of the cells, the growth was entirely devoid of stroma, and no mitotic figures were found. A rich reticulin network was present between the cells and it showed a "tufting appearance". The cytoplasmic granules were weakly positive with periodic-acid-Schiff stain, strongly positive with Sudan black, and stained red with Masson's trichrome stain (Figs. 2 and 3).

Comment

Despite the atypical appearance of an absent stroma and the lack of alveolar grouping this tumour seems to be a granular-cell myoblastoma arising in the anterior uvea, possibly in relation with the ciliary muscle. These growths are benign and

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FIG. 1.—Anterior segment photography showing the globular tumour filling almost two-thirds of the anterior chamber and pushing the pupil to the temporal side.

FIG. 2.—Microscopic appearance of the tumour showing a great amount of cells and an almost absent stroma (paraffin section, haematoxylin and eosin).

FIG. 3.—The same with large magnification showing polyhedral cells with small nuclei and coarse granules of the cytoplasm (paraffin section, haematoxylin and eosin).

usually arise in association with voluntary muscle, although Azzopardi (1956) described a case arising in the pylorus. Since this tumour has never been previously reported in the eye, and in view of the significance of the diagnosis, sections were sent to Dr. Azzopardi, who has made a special study of myoblastomas. He reported as follows:

"There is no doubt that this growth falls into the general group that most people would call "myoblastoma". It differs from the typical myoblastoma of the skin, etc., in having bloated cells with sharp edges and very little intervening stroma. In these respects it is reminiscent of some of the lesions called congenital epulides. I have done a PAS which is weakly positive and Sudan black, which for a paraffin section is very strongly positive. As far as they go both these confirm the result one would expect in "myoblastoma". It does not necessarily follow that this has the same histogenesis as all the lesions grouped under the name of myoblastomas."

Summary

A case of granular-cell myoblastoma of the anterior uvea is presented and the pathology described. No previous case has been reported in the literature.

We wish to acknowledge gratefully the assistance of Prof. Norman Ashton, who made a most complete pathological study of our case.

REFERENCES

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