CASE NOTES

CHOROIDAL CARCINOMA METASTATIC FROM THE MALE BREAST*

BY

C. H. GREER

Department of Pathology, Institute of Ophthalmology, London

GIRI (1939), reporting a secondary carcinoma in the choroid from a primary growth in the male breast, stated that an exhaustive search of the literature had revealed no previous instance. An additional case is described below.

Case Report

Male ultramarine worker, aged 41.—In October, 1943, biopsy from a tumour in the left breast showed a spheroidal-celled carcinoma, and a radical mastectomy with skin grafting was performed followed by deep x-ray therapy.

In March, 1951, episcleritis developed in the left eye; the visual acuity was found to be 6/6 and the episcleritis settled under local treatment. By August, 1951, this eye was blind, but not painful, and examination showed an extensive shallow retinal detachment from 4 to 10 o'clock with ballooning of the retina at about 6 o'clock, beneath which there appeared to be a solid mass near the ora serrata. The eye was enucleated on the suspicion of primary choroidal neoplasm. Further examination of the patient, however, revealed several shadows in the left lung, left phrenic paralysis, and extensive osteoclastic changes

FIG. 1.—Metastatic spheroidal cell carcinoma in the kidney, from a primary in the male breast. Haematoxylin and eosin $\times 120$.

*Received for publication August 7, 1953.

FIG. 2.—Detail from Fig. 1. $\times 500$.

in both femora. In December, 1951, he was admitted to hospital with a pathological fracture of one femur, and he died in May, 1952.

Post-Mortem Findings.—The appearances were only briefly recorded, but carcinomatous infiltration was present in both lungs and metastatic nodules were found in both kidneys. No further information is available.

Sections from the kidney (Figs 1 and 2) showed spheroidal cell carcinoma. The growth consisted of lobulated masses of large polygonal and columnar cells with granular eosinophilic cytoplasm, distinct cell boundaries, and large pale spheroidal nuclei. Mitoses were infrequent, and the cells, which were uniform in size, showed a distinct tendency to form tubules. There was an abundant dense fibrous stroma. Sections from the lung showed a similar picture.

Ocular Findings.—The left eye was fixed in Zenker's solution and opened by bilateral parasagittal section. Macroscopically, a flat yellowish-grey haemorrhagic tumour was present in the posterior choroid below the disc extending forward to the equator (Fig. 3, overleaf).

The degenerate retina was extensively detached. Section (Fig. 4, overleaf) showed a large spheroidal cell carcinomatous deposit, histologically identical with those in the lungs and kidney. The growth had invaded the sclera and extended along the intrascleral perivascular spaces, but there was no evidence of extra-ocular extension. Abundant haemorrhage was present in the choroid and in the subretinal space.

Discussion

Carcinomatous metastasis to the choroid from any primary site is a rare event. According to Stallard (1933) the incidence is 1 in 140,000 ophthalmic

FIG. 3.—Para-sagittal section of left eye. Zenker fixation. $\times 3$.

FIG. 4.—Metastatic spheroidal cell carcinoma in the choroid, from a primary in the male breast. Haematoxylin and eosin. $\times 120$.

hospital patients, and the total of recorded cases was stated by Bedell (1943) to be 250. Over 50 per cent. of those recorded were of mammary origin.

Schinz (1939) saw only three cases with metastases in the choroid among 538 cases of mammary carcinoma treated at the Roentgen Institute in Zürich.

Previously unpublished figures from the archives of the Institute of Ophthalmology for the years 1935–53 show forty undoubted cases of metastatic carcinoma in the choroid. A further three probable cases in which there was some doubt about the histological diagnosis have been excluded, as have two metastases located principally in the anterior segment of the eye.

This series included 27 women and thirteen men; the average age of the women at enucleation was 51 years, that of the men 55.2 years. Of the forty cases, eighteen certainly and a further five probably, originated in the breast; seven cases (all men) were known to have pulmonary carcinoma, and in ten (five women and five men) no clinical evidence was presented to suggest the whereabouts or even the existence of a primary tumour at the time of enucleation. Histologically, 22 of the forty choroidal tumours were spheroidal cell carcinomata, two were oat cell secondaries from the lung, and the remaining ten adenocarcinomata.

By comparison, during the same length of time, the archives record 236 cases of retinoblastoma and 1,274 of malignant melanoma of the choroid.

Summary

The clinical and pathological findings in a case of metastatic carcinoma in the choroid from a primary in the male breast are briefly reported. The rarity of the condition is emphasized and some previously unpublished figures of the incidence of choroidal metastatic carcinoma from the records of the Institute of Ophthalmology are presented.

My thanks are due particularly to Dr. J. R. Acfield for permission to publish this case and for clinical details, to Dr. Peter Hansell for the photographs, and to Dr. Norman Ashton for advice.

REFERENCES

- BEDELL, A. J. (1943). *Arch. Ophthal. (Chicago)*, **30**, 25.
GIRI, D. V. (1939). *Schweiz. med. Wschr.*, **20**, 1069.
SCHINZ, H. R. (1939). *Klin. Mbl. Augenheilk.*, **103**: 425.
STALLARD, H. B. (1933). *Proc. roy. Soc. Med.*, **26**, 1042.