SUBCONJUNCTIVAL LYMPHOMATOUS TUMOUR*

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IN his review of orbital tumours based on autopsy material, Forrest (1949) puts the proportion of lymphomata or lympho-sarcomata at about 10 per cent. Yet the disease does not often present in the first instance to an ophthalmologist. Schultz and Heath (1948), in a series of 1,600 cases of lymphomatous tumours of all varieties, found that only 3.1 per cent of them were of orbit or conjunctiva only. This insignificant percentage may perhaps be explained by the fact that, as Wolff (1948) pointed out, "no real lymphatics have as yet been demonstrated in the orbit", though there are conjunctival lymphatics which . . . "drain towards the commissures where they join the lymphatics of the lid". McGavic (1943) collected a series of 21 lymphomatous tumours presenting solely in the region of the eye; five of the 21 were "subconjunctival", like the case described below, seven were in the lacrimal gland, three in the orbit, and five in the lid and brow, and one was intraocular (in the iris).

The following case may therefore be of interest, as it is typical in appearance, and in age of onset, and also in its undoubted radio-sensitivity.

Case Report

A woman aged 73 attended complaining of a painless mass under the eyelid of about 6 months' duration and visible to herself for 2 or 3 weeks. She was a big built woman from a country district, and had no other pains or symptoms. There had been no trauma and no preceding illness. A clinical search for enlarged lymph-glands, liver, or spleen, and for surface signs of neurofibromatosis was negative.

Laboratory Findings.—Mantoux and Kahn tests negative.

X ray of the orbit of mediastinum clear. Blood-Count, erythrocytes 4.4 million per c.mm., haemoglobin 88 per cent., colour index 1.0, leucocytes 4,000 per c.cm., neutrophils 62 per cent., large mononuclears 4 per cent., lymphocytes 34 per cent.

The tumour rested in the upper fornix, and was fleshy and of elastic, solid consistency, with smooth conjunctiva over it (Fig. 1). It caused no proptosis nor injection of the eye. The upper eyelid bulged forward (Fig. 2), and eversion showed that the lid itself was free and the palpebral conjunctiva normal. As is shown in Fig. 3, the tumour overhung the upper edge of the cornea. The visual acuity was 6/9 in each eye with correction, and with the exception of slight asteroid vitreous opacities the fundi and media were clear. No definite diagnosis was established before biopsy. Local excision of the tumour was performed on December 6, 1951, and, as the mass appeared to be localized to the surface, no attempt was made to explore the orbit more deeply.

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FIG. 1.—Tumour in upper fornix.

FIG. 2.—Displacement of upper eyelid.

FIG. 3.—Tumour overhanging upper cornea.

Pathology.—The report from the Department of Pathology of the Institute of Ophthalmology (Fig. 4) was as follows:

Section shows a partially encapsulated tumour, composed of small lymphocytic cells with a minimum of cytoplasm and round reticulated nuclei. There is little connective tissue stroma, but the growth is permeated by a network of well-formed fine capillaries. Haemorrhage and cellular necrosis are evident. This is a lymphomatous tumour, but it is not possible from the histological picture alone to be certain whether it is a benign lymphoma, lymphosarcoma, or lymphatic leukaemic infiltration. A general physical examination, with particular reference to the lymphatic system, and a complete blood-count, may prove of value. The growth reaches to the limits of the biopsy and has probably not therefore been completely removed. Lymphomatous tumour of the orbit.

FIG. 4.—Section of lymphomatous tumour. $\times 510$.

Radiotherapy.—In view of this report, the patient was seen in consultation by Dr. Nuttall and 5 weeks after the excision x-ray therapy was given locally by his department. This

consisted of a single treatment of superficial x ray, of 80 KV 1,200r on January 14, 1952, done with a 3 cm. circle straight into the orbit.

It is now 3 years since the appearance of the tumour, and 2½ years since it was excised. There has been no local recurrence nor involvement of the eye, which retained corrected visual acuity of 6/12, until this year (1954), when it deteriorated to 5/60 on account of a posterior polar cataract. The patient remains in excellent general health, and her weight is unchanged. Clinical examinations at intervals have so far shown no palpable lymphatic adenopathy, and no enlargement of liver or spleen. X-rays of the chest have shown no evidence of enlarged mediastinal glands nor atelectasis. The blood picture remains unchanged, the most recent report (June 30, 1954), showing:

Red blood cells 4,300,000 per c.mm., normal in morphology and distribution, haemoglobin 88 per cent., colour index 1.0, white blood cells 4,000 per c.mm., normal in number, morphology, and distribution, neutrophils 60 per cent., large mononuclears 12 per cent., lymphocytes 28 per cent.

Discussion

The recent literature on lymphomatous tumours presenting in the orbit or subconjunctiva seems to point to a relatively good prognosis, with prompt x-ray therapy, so long as signs of remote disease are not already evident. Wintrobe (1946) says that the case with the most favourable outlook is perhaps the one with only one accessible node-group involved, no deep adenopathy, and no systemic symptoms. Feinstein and Krause (1952) deduce from their series that:

It is apparent in twelve of the eighteen cases that if the disease was going to strike at the extra-ocular axes, it did so within 1½ years from the onset of the initial lesion.

Schultz and Heath (1948), say that, in their eight cases in which the lymphoma was localized to the conjunctiva when first seen without signs elsewhere, there was no recurrence, local or remote, after treatment over periods of from 2 to 5 years. But, of six cases in which remote disease was evident concomitantly, all but one promptly succumbed despite treatment. They say the ultimate prognosis is grave in any case but that . . . "an unusually long period of remission may be expected if the disease is confined to the conjunctiva". They quote cases of patients who have remained well for 11 and 19 years after excision and x-ray therapy. Of twenty cases of lymphomatous tumour about the eye reported by McGavic (1943), all being verified by biopsy, seventeen presented without any generalised involvement, and of those, fifteen were alive after a follow-up averaging 4 years, eleven without and four with generalized spread. McGavic says a long survival rate is largely dependent on the treatment of the disease while it is still localized, but that extending his follow-up period might modify the prognosis. Of the five cases which presented subconjunctivally, all except one were alive and well 2 to 4 years after treatment.

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