LYMPHOCYTOMA OF THE ORBIT*

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LYMPHOMATOUS tumours have been found to arise from sites where the existence of lymphoid tissue is unknown. Sugarbaker and Craver (1940) reported extranodal sites as the primary foci of such tumours in 33 per cent. of their series of 196 cases of lymphomatous conditions, 65 per cent. of them being in the head and neck.

These tumours may be strictly localized, may have multicentric existence anywhere in the body, or may involve the blood stream. Stout (1942) classified them into three different histological types:

- (1) *Lymphocytic Cell Type*.—The cells are small and round, the cytoplasm is scanty, and the nuclei take up a dark stain with haematoxylin;
- (2) *Reticulum Cell Type*.—The cells are large and pale, and irregular in shape and have vesicular nuclei;
- (3) *Giant Follicular Type*.—This is characterized by the formation of large follicles.

The terms “lymphocytoma of the skin”, “lymphadenosis”, “miliary lymphocytoma”, or “benign lymphadenoid granuloma of the skin” have been used by dermatologists to describe miliary nodules in the face, scrotum, and extremities, which simulate clinically a miliary sarcoid or lupus miliaris disseminatus. No haemocytological changes occur in this group of tumours which have been regarded as developing from pre-existent lymphoid tissue. Histologically they are composed of lymphocytes and occasionally of reticulum cells simulating germinal centres. They are supposed to occur as a result of chronic irritation.

Of 21 histologically verified cases of lymphomatous lesions with ocular manifestations, McGavie (1943) found a primary tumour in the region of the eye in seventeen, while in four others the eye was affected by a secondary involvement. Of these 21 cases, five were in the subconjunctival tissue, seven in the lacrimal gland, three in the orbit, and five in the lids and brow.

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Of the 62 cases reported by Reese (1951), 23 were in the orbit, 21 in the conjunctiva, fifteen in the lids and lacrimal gland, and three in the uveal tract.

Arnold and Becker (1872) first noted the occurrence of orbital lymphomata. These tumours can occur at any age and in both sexes and are bilateral in over 20 per cent. of cases. The ocular lesions occur insidiously. Subjective symptoms are insignificant but the patients may seek relief on account of an unexplained mass in the conjunctiva, skin, or orbit. A deep-seated lymphoma of the orbit may be the cause of unilateral exophthalmos with no superficial evidence of the disease and no palpable mass; if the growth is large, it causes proptosis and limitation of movement, and a mass can be palpated in the orbit. Extreme degrees of protrusion, as much as 10 to 30 mm., have been reported (Arnold and Becker, 1872; Ahlström, 1904; Seeligsohn, 1906). Papilloedema and optic atrophy may be caused by pressure exerted by the tumour.

Case Report

A man aged 42 years presented himself on November 14, 1955, complaining of fullness of the right upper and lower lids and gradual painless proptosis for the last 11 months. There was a history of injury to the nose with epistaxis 9 months previously.

Examination.—A small tense mass could be felt deep under the right lower lid above the lower orbital margin on the medial aspect. The skin was free and the tumour mass was mobile, firm in consistency, and not tender to pressure. The skin over the tumour mass was normal. No pulsation could be felt over the area nor bruit heard. There was congestion of the bulbar conjunctiva on both the medial and lateral sides at the lower part. Slight proptosis of about 2 to 3 mm. was present. Movements of the eyeball in all quadrants were normal. The visual acuity was 6/6, the intra-ocular pressure normal, and the fundus healthy.

Nothing abnormal was seen or felt in the left eye; the visual acuity was 6/6, and the fundus healthy.

The nose and accessory nasal sinuses, an x-ray examination of the right orbit, and a blood examination showed nothing abnormal.

Operation.—On December 2, 1955, under local anaesthesia, an encapsulated tumour which measured 24 × 23 mm. was removed from the orbit. Healing was uneventful, but slight chemosis of the conjunctiva and proptosis with limitation of movements continued for some days after the operation. When patient was discharged on December 23, 1955, the congestion of the bulbar conjunctiva and proptosis had quite disappeared, but slight limitation of movement on the medial side with diplopia persisted. The patient has not reported since.

Pathologist's Report.—"The section shows densely packed small mononucleated cells which are traversed by bands of fibrous tissue. These cells are indistinguishable from adult lymphocytes. Reticulum cells are scattered in these compact masses of cells, which have large pale nuclei with a moderate amount of light grey cytoplasm. Neither immature cells of the lymphoid series nor the presence of mitotic figures are seen. These homogeneous cells are distributed indiscriminately without any tendency to the formation of lymph follicles (Figs 1, 2, and 3, opposite). Necrosis is absent. Diagnosis—lymphocytoma."

FIG. 1.—Low-power photomicrograph. $\times 50$. FIG. 2.—High-power photomicrograph. $\times 144$

FIG. 3.—As seen under oil-immersion lens, photomicrograph. $\times 472$.

Discussion

Considerable confusion has arisen because of the different names that have been given to tumours arising from lymphoid tissue, and have been applied in different senses by different authors.

Willis (1953) agrees with Warthin (1931), Ginsburg (1934), and Herbut, Miller, and Erf (1945), that all tumours of lymphoid tissue are related variants of one disease process.

Even after histological examination, pathologists may differ as to the category into which the particular tissue should be placed. It is not always easy to assess the prognosis of a case by studying the microscopic appearance of a given tumour as there is always the possibility that the nature of the tumour may change later.

Summary

A brief review of benign lymphomatous tumours is presented with a case report on a lymphocytoma of the orbit.

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