SOCALLED SOLID EDEMA; LYMPHOMA.

ARTHUR J. BEDELL, M.D., F.A.C.S.

ALBANY, N. Y.

Two cases are here reported in which the histologic diagnosis of the removed tumors was lymphoma. One under observation for 9 months and classed as a solid edema, was circumcorneal and apparently benign; the other affected the lid, ultimately recurred, and the patient died after four years from laryngeal and pulmonary lesions. Read before the American Academy of Ophthalmology and Oto-Laryngology, October, 1921.

Solid edema, an ill defined term, has seldom been applied to an eyeball lesion, so there is very little in the literature in reference to the condition. The com-

plaint was felt ill for some days, with a little puffiness of the eyelids in the morning and some sensation of a foreign body in the eye. Most of her discomfort disap-

Fig. 1.—Case 1. Superficial mass showing conjunctival surface and tumor. 62.5X.

mon understanding of the disease is a recurring swelling with redness. The example that we place before you is of an entirely different type.

Mrs. L. D., age fifty-two years, an American born housewife, first complained of trouble with her right eye in August, 1919. A slight redness appeared on the inner side of the eyeball which increased in size. This injection appeared after a motor trip, when the eyeball pained badly and the patient

appeared after the use of hot compresses, but the redness and swelling steadily increased. Thru the kindness of Dr. A. W. Sylvester, I saw the patient on August 5, 1920. See Plate VI.

The vision of the right eye was 20/40, cornea clear, pupil 4 mm., regular, active, with no alteration in the color or consistency of iris. The media were clear, and the disc distinctly outlined without abnormality of pigment or vessel distribution. No change in

the retina or choroid, so that the entire lesion was extraocular and occupied a position mainly to the nasal side of the globe. This pericorneal mass was 14 mm. wide and about 5 mm. thick. It was round, pink and edematous looking, and extended from a point about opposite the insertion of the superior

ed area, one disc diameter in size, of pigment absorption and deposits.

When a child the patient had scarlet fever and measles and has always been susceptible to "cold;" once had an abscess of her eyelid, and once an abscess of her throat. At twenty she had a nervous breakdown, but since that

Fig. 2.—Case 1. Nuclei large, oval, granular eccentric. 600X.

rectus around the globe to the temporal side of the inferior rectus. The conjunctival vessels passed over the tumor without increased tortuosity and were only slightly enlarged in caliber, although more numerous and on pressure easily compressed. The tumor lay beneath the conjunctiva, was firm to pressure, immobile with a smooth margin which faded into the surrounding tissue, except at the limbus where the conjunctiva bulged to cover the mass.

The left eye: vision 20/70, pupil 4 mm., regular, active, media clear, disc without change, but in the macular region a lattice like, irregularly round-

time has had no recurrence. Has one living child and has lost none. She has had no injury or constitutional infection of any kind. She has never spent any long period in a tropical country, and has never had any intestinal upset or malaria.

To determine the nature of the mass, the patient was admitted to the Albany Hospital, where the blood Wassermann was found to be negative. The urine and stool were also negative. Subcutaneous injections of old tuberculin caused no local, general or focal reaction. Three teeth were found to have apical abscesses and were removed,

and the patient given hexamethylenamin and increasing doses of potassium iodid.

After having been under observation four months, it seemed that there was a positive increase in the growth. On the 10th of December, under cocain anesthesia, the Shahan thermophore

seen by Dr. George E. de Schweinitz who considered the condition one of the so-called solid edemas, and felt that the mass was probably not malignant. At this time all the perinasal sinuses were negative physically and by X-ray.

Some months later, May 7th, the patient again entered the Albany Hos-

Fig. 3.--Case 2. Showing enlarged mass on everted lids.

with the 5 mm. tip was placed over the superior margin of the mass with a temperature of 156° for one minute. The application had no effect. Because of the smooth margin, taken in conjunction with the other findings, the patient was told that probably the mass was a firm edema. The growth was slightly larger, but there was the thought that it might be malignant and, therefore, I hesitated, for fear of making conditions worse, to take a piece for microscopic study.

On February 2, 1921, the patient was

pital, and a small piece of the tumor was removed, which Dr. Ellis Kellert reported as probably not malignant, a lymphoma. On the 25th of May, under ether, a conjunctival incision was made 3 mm. from the limbus, extending from above down to the inferior rectus. The conjunctiva was easily separated from the growth. At no place did the conjunctiva seem to enter into the mass. However, the tumor encircled the internal rectus and inferior rectus, so that it was necessary to dissect it carefully from the two

muscles. Altho somewhat adherent to the sclera, it did not penetrate deeply. When removed, the tumor was soft and friable. There was very little bleeding, but the conjunctiva tore so easily that ordinary sutures would not hold, therefore, two traction sutures were placed across the cornea. The healing was uneventful. Conjunctival

months, there is no evidence of tumor formation. The one guinea pig killed showed no evidence of tuberculosis.

It is well known that the follicles of the conjunctiva may proliferate in such a way that great masses of true lymphoid structure are found. As far as we know, there is no record of a mass growing on the eyeball of this

Fig. 4.—Case 2. Nuclei deep staining, uniform in size and shape, rounded. 350X.

apposition is excellent and the only point where vascularization persists is at the side of the preliminary tumor dissection.

The tumor mass proved to be a true lymphoma, consisting chiefly of lymphocytes and some connective tissue strands. The walls of the capillaries and blood vessels were intact.

Bacteriologically nothing had been developed. No organisms were found in the growth, and the parts implanted in rabbits and guinea pigs have failed to cause the death of any of the animals, and now at the end of several

size that has proved to be lymphomatous.

In comparison with the case just cited is that of Mr. G. B., age sixty years, who was first seen January 3, 1910, giving a history of irritation as of something in the left eye for two months, during which time there had been some lacrimation with slight secretion in the morning. The eyelids were decidedly thick with entropion of the lower lids as a result of many large firm, greyish pink masses. These swollen areas were tense, firm and round. In the upper cul de sacs, ex-

tending from the cartilaginous border, were masses, the largest of which measured 3.5 mm. by 1 mm. These masses were removed and on examination proved to be lymphoma, which later, however, took on certain changes so that the diagnosis was made of lymphocytoma, lymphoblastoma, lym-

the lungs following laryngeal spasm. For months before his death it was with great difficulty that he could speak.

Histologically, the tissue was lymphoid in character with no suggestion of lymphoid follicles and germinal centers. The individual cells closely

Fig. 5.—Case 2. Nuclei deep staining, rounded. Some nuclei granular oval, showing cytoplasm. 600X.

phosarcoma and malignant lymphoma.

Despite a very careful removal of all the diseased tissue, there were recurrences with extension first showing itself as a mass on his upper lid and extending from there to the glands of his neck and deep into the orbit, but extending in such a way that there was no proptosis, but an extension of growth back from the lids themselves. After being under observation four years, the patient went to bed August 20, 1914, and died September 21st of the same year, as a result of edema of

resembled the normal lymphocytes, and occasionally, similar but larger cells resembled lymphoblasts. Mitotic figures were present but not numerous. The stroma was scanty, the blood vessels abundant and fairly well developed.*

It is hoped by the careful consideration of these two cases that others may record their observations and something new be gained.

*Photomicrographs and sections were made under the direction of Dr. Anton S. Schneider.

A CASE OF "SOLID EDEMA", LYMPHOMA—DR. BEDELL

A ROUNDED, ELEVATED, PERI-BULBAR MASS EXTENDING FROM LIMBUS
BACKWARD FADING INTO THE SURROUNDING TISSUE. THE
HIGH LIGHT REPRESENTS THE DEFINITE EDEMATOUS
APPEARANCE OF THE GROWTH

FIG. 2. LEFT EYE

FIG. 1. RIGHT EYE

RETINITIS PROLIFERANS WITH HODGKIN'S DISEASE. (BELL'S CASE).