

# NOTES, CASES AND INSTRUMENTS

## MARGINAL VESICULAR. KERATITIS.

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An interesting case is that of a woman of forty who has been under observation for the past year and a half. About a year ago, Dr. E. Jackson saw her and was no more able to put a name to the disease than I was. Because of inability to classify, I have called it "Keratitis Marginalis Vesiculosa."

Miss W. R., June 8, 1920. Left eye. Vision poor since childhood; present trouble with left eye of 8 years duration and has been uneventful, except for a corneal ulceration about 2 years ago. There have been blisters on the right eye some six to eight weeks. Right eye. Very slight conjunctival injection in inferior nasal quadrant. Concentric to the limbus and 1 mm. therefrom is a band of opacity 2 mms. wide extending from meridian 0 to meridian 270°. Between the limbus proper and this gray band is a 1 mm. strip of clear and normal cornea, except for superficial vessels. The corneal margin of the gray band is sharply demarcated and is concentric to the limbus. The band is covered with an unbroken epithelium that is irregularly raised; and immediately under this are innumerable vessels that pass from the conjunctiva over the clear corneal area to the gray band. These vessels show no abnormality or peculiarity, beyond extensive ramification and a very abrupt change in course at the inner margin of the gray band. At meridian 330° the epithelium over the gray area is elevated into a bleb 2 x 3 mm. in size, parallel to the limbus and 1 mm. high. The covering of the bleb is pure epithelium, thru which course the large vessels of conjunctival origin. The tissue underneath the bleb is normal. On evacuating the bleb of the perfectly clear fluid that it contained, the epithelial cover sank back into place without a wrinkle. The opacity of the gray band extended about  $\frac{2}{3}$  into the depths of the cornea and under the slit lamp was found to be a perfectly homogeneous

opacity of the corneal stroma, with complete obliteration of the lymph spaces. The remainder of the cornea was normal as were the other parts of the eyeball.

The left eye was pale. The entire lower  $\frac{2}{3}$  of the cornea was involved in the similar gray process, that was found in the beginning stage in the right eye. The surface of the cornea was unbroken, but very uneven, bearing more resemblance to a contour map of a foot hill country than anything else. The slit lamp showed no irregularities of the corneal epithelium. Vessels were not as numerous as in the right eye, but were larger and bore deeper into the depths of the cornea with fewer anastomoses. The marginal loops of the conjunctival vessels at the limbus showed many microscopic dilatations of an aneurysmal type. The stroma of the cornea showed a more or less uniform gray opacity with complete elimination of the lymph spaces. Corneal nerves were nowhere visible. Toward the upper clear portion of the cornea, the opacity became thinner and gradually faded into clear and normal substance, without any microscopic line of demarcation. In the lower inner quadrant of the cornea, some three mm. from the limbus, and located very deep, probably in the posterior quarter, was an irregular shaped 2 mm. area of dense opacity that seemed like a calcareous deposit similar to the type seen in Axenfeld's "Calcareous Band Opacity of the Cornea." This was so covered with semiopaque corneal tissue that details could not be discerned.

Thru the clear portion of the cornea, about one-fourth of the iris could be seen. This presented no abnormality beyond several anomalously dilated crypts. As far as could be told, the remainder of the eyeball was normal.

Many infected tooth roots were found and the general condition of the mouth was bad. All the teeth were removed; but this had no influence upon either eye. General physical examination revealed no pathology.

She was given 5% dionin, the use of which seemed to cause a slight thinning

in the opacity of the left cornea. This was later combined with fibrolysin without any noticeable influence. During the past year and a half, several blebs have appeared at different times at the ends of the band in the right eye and upon their disappearance have left behind an increase in the size of the band and added irregularity of the corneal surface.

This picture is somewhat unusual, but is rather complete, the beginning stage

## PRIMARY EPITHELIOMA OF THE CORNEA WITH TREATMENT.

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The following case is of particular interest; first, because of the rarity of primary malignant growths of the cornea; second, because it demonstrates the feasibility of exposing the eye to

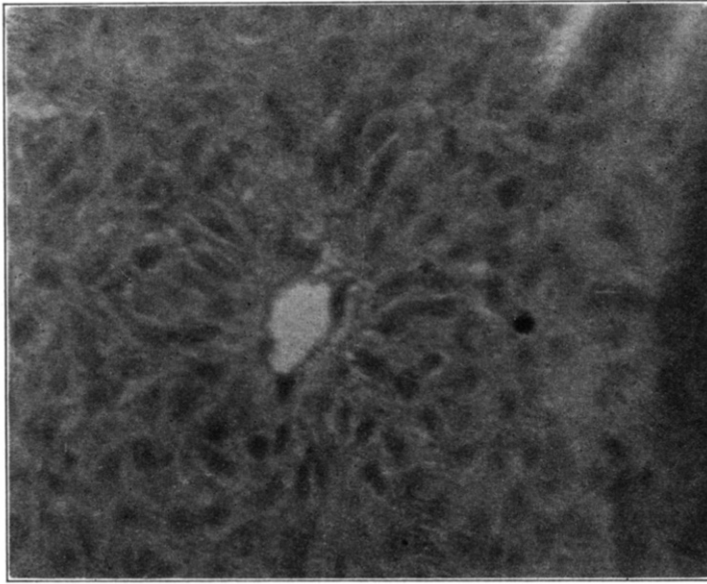


Fig. 1.—Section of corneal growth composed chiefly of epithelial cells, some arranged concentrically. Diagnosis epithelioma.

being represented in the right eye and the terminal stage in the left eye. From some unknown cause, the epithelium of the cornea, at first a short distance from the limbus, forms a bleb and subsequently, this disturbed epithelium becomes vascularized from the neighboring conjunctiva. In all probability the bleb does not rupture, but its contents are simply absorbed. The undisturbed epithelium as seen by the slit-lamp speaks against any solution of continuity. The disappearance of the bleb is followed by the uniform opacity of the underlying cornea, probably due to toxins of the vesicular contents. The process repeats and the opacity increases in size. The cause cannot be determined; but the eventual outcome is loss of vision, unless the process can be checked.

fairly large doses of radium without injurious effect; and third, because of the most excellent result obtained in this case.

W. E. K. Case No. 1094. Male, Age 60. Occupation, Stationary Engineer. Referred to me May 20, 1919 by Dr. Frank W. Miller, whose report is as follows:

"W. E. K. reported May 15, 1919, that he had noticed a small red spot in the left eye, dating back probably three months. This spot became elevated and gradually increased in size. There was no pain nor distress except mild conjunctival irritative symptoms. On examination a small pediculated and partly movable, spherical growth, 3 mm. in diameter, was found at the inner corneal limbus. This growth was thoroly re-