

A REPORT OF LEPROSY LESIONS OF THE FUNDUS¹

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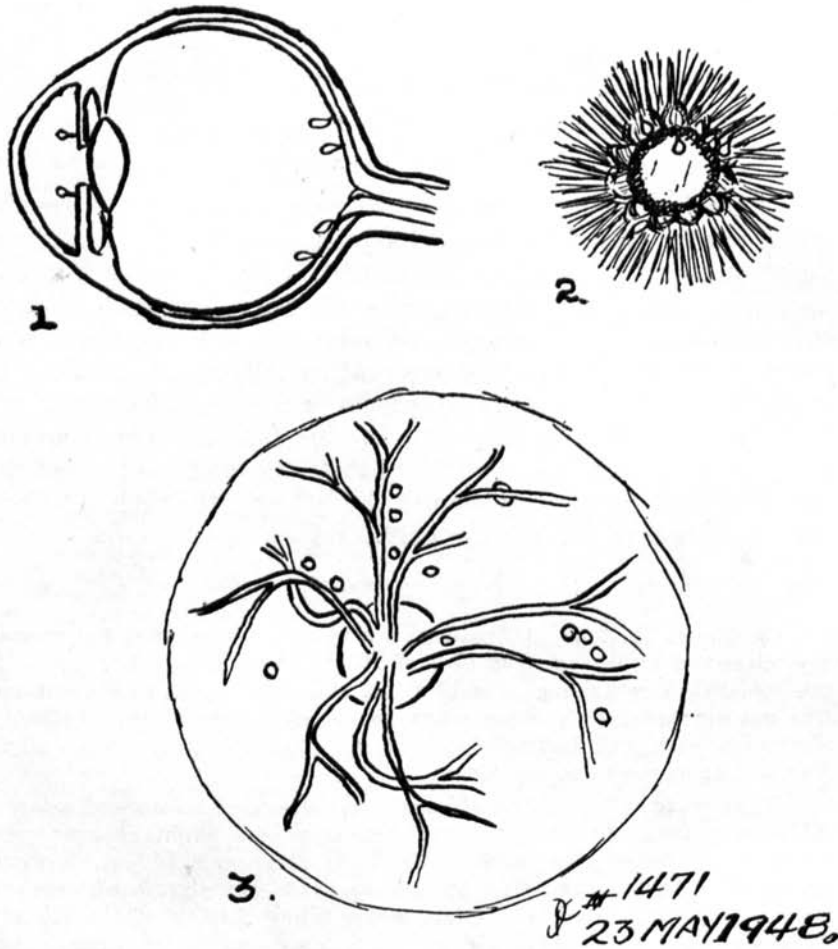
Ophthalmoscopic evidence of leprosy lesions of the fundus was recently seen in a case of lepromatous leprosy of fifteen years duration. These lesions are truly leprosy, we believe, for they are identical in contour, color and waxy refractile characteristics with those seen on the iris with the slit lamp, and which have been proven by our routine microscopic sections to contain typical lepra cells, Hansen's bacilli and the round cell infiltration of a true leproma. In this patient these common lepromata of the iris were present in each eye at the time of the reported difficulty with vision of the left eye; the retinal lesions were observed in the left eye only.

CASE REPORT

On March 23, 1948, the patient, a corpulent white male, 43 years of age, classified as lepromatous (*L₂*) of fifteen years duration, reported to the eye clinic complaining of sudden loss of critical vision in the left eye. The patient had been reading when he became aware of this difficulty, and when seen two hours later had no other symptom except slight discomfort; there was no acute pain.

Upon examination of the affected eye there were no marked external differences from previous observations except for slight circumcorneal injection. Reflexes were active. The ophthalmoscopic picture, however presented a fascinating array of creamy white, waxy-surfaced, polypoid lesions projecting from the retina, without any display of the choroid. These pedunculated "pearls" or lepromata were located from one to two times the diameter of the disk away from the head of the optic nerve, and were distributed as individual extrusions with but one exception; a cluster of five was present in one field, temporally at 0400. One particularly well formed pearl was noted just above but upon a mid-line between the disc and the fovea. Two others were noted separately in this area, and laterally there were two additional lesions in line with the above described cluster. On the nasal side three more single lepromata protruded between the vessels of the fundus, making a total of twelve such lesions.

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TEXT—FIG. 1. Diagrammatic sketches of the fundus lesions as seen on May 23, 1948, two months after the first observation. 1. Sagittal section to illustrate the leproma of the iris and the similarly forward waxy-appearing lesions on the retina. 2. Showing several lepromatous "pearls" on the iris, some in the pupillary margin; the lens is clear. 3. Ophthalmic view of the lesions on the retina. (One noted near the fovea at the first examination has resolved completely.)

The transient character of these lesions is evidenced by the fact that the uppermost one in the mid-line group above the fovea had almost completely resolved six days after it was first observed, when an additional, smaller, glistening body was noted protruding nearer the fovea. No subsequent change in distribution has been observed during the past two weeks.

With the onset of this complication the visual acuity of the affected eye was reduced to a blurred perception of the 20/100 characters. Two weeks later perception was the same; the patient claimed improvement in definition. The visual fields were at this time reduced to 40 degrees in

all directions, except that temporally there was lateral extension to only 80 degrees. Red and green perception was reduced in all directions to 15 degrees and 25 degrees respectively, with lateral extensions to only 20 and 40 degrees.

In October 1947, when the fundi of both eyes were negative, lepromata were observed only on the left iris, four having been enumerated at that time. Eight months later, at the time of this examination, there were three lesions on the left iris in different locations than charted previously, and four entirely new ones were seen on the right eye. No posterior synechiae had formed in either eye, nor has an exudate or film formed over the anterior surface of the lens. This fact has made it possible for us to observe the described changes in the fundus. The lepromatous beading of the corneal nerves has not altered, and the epicorneal vascular corona at the limbus has not extended. There is no apparent increase in the density of the slight punctate keratitis noted originally, when vision was O.D. 20/20 and O.S. 20/30.

No other complications were observed in this patient, who was under routine sulfone treatment with diasone. It should be noted parenthetically that eye complications have been observed here in some cases during the course of all types of sulfone therapy, regardless of the drug employed. No other retinal lesions of this character have been observed in our examination of over 500 fundi.

REVIEW OF LITERATURE

Contrary to the findings in this case, the existence of leprosy lesions in the posterior segment of the eye is generally denied in the literature. Contreras Duenas and Jijon (1) report only two cases seen with posterior segment findings, namely retinitis and a choroiditis apparently due to other conditions than leprosy. Harley (2) confirms the prevailing views on anterior segment pathology, reporting the findings of 50 cases where the fundus could be seen. In a case mentioned by Hoffmann (3) the diagnosis of leprosy was not confirmed, and Maffrand (4) seems to believe that even lesions of the iris in these patients are not truly lepromatous but are "tuberculous, syphilitic or due to sepsis," although there is now ample evidence in the literature and in our laboratories describing and illustrating the true leprosy character of the iris lesions. Vale's monograph (5) contains no reference to lesions of the fundus.

SUMMARY

1. In a case of leprosy classified as of advanced lepromatous type, an acute ocular disturbance resulted in an examination which disclosed lesions on the fundus, which are believed to be lepromatous in character.

2. These lesions are identical ophthalmoscopically with those seen on the iris in this patient and in others; iris lesions of this kind have been histologically proven to be true lepromas.

3. The relatively transient character of these "pearl" formations, both on the iris and on the fundus, is illustrated by this case, in which these lesions have developed and receded within a period of eight months of observation.

4. It is believed that unless such an eye could be obtained accidentally at the time such a manifestation is observed clinically, histological confirmation of the nature of these lesions will be difficult to obtain. There may be no distinct pathological condition remaining to be observed in the eyes which come to examination many years after the acute process has passed.

ADDENDUM

Since this article was written three other cases of leprosy lesions of the fundus of the eye have been demonstrated. These will be formally reported upon later.

ACKNOWLEDGEMENTS

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