

Hypopigmented Patches in Fundus in Leprosy

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In a recent survey of 250 leprosy patients an unusual type of abnormality in the fundus was detected. Out of 50 examined with the ophthalmoscope four showed the abnormality and in both eyes. Two were resolved lepromatous cases and the remaining two retrogressed tuberculoid cases.

Fundus pictures of them were taken on Kodachrome II film by a Zeiss Fundus camera, and four patients showed the spots.

THE LESIONS IN THE FUNDUS

Dull, hypopigmented, flat and discrete patches of dots to one quarter of the disc in diameter were scattered all over the fundus, grouped at places but sparsely situated at the macula and extreme periphery. They were all deep to the retinal vessels and did not produce any scotoma nor field defect. The trans-illumination test was normal.

No associated pigmentation of any kind, nor haemorrhage, scarring, atrophic patches or inflammatory vitreous opacity were noted.

The appearance suggested hypopigmented spots in the choroid without inflammation.

LITERATURE REVIEW

No parallel example in English literature was found. Nodules and polypoid lesions were however described in leprosy (ELLIOT 1949; SOMERSET 1957).

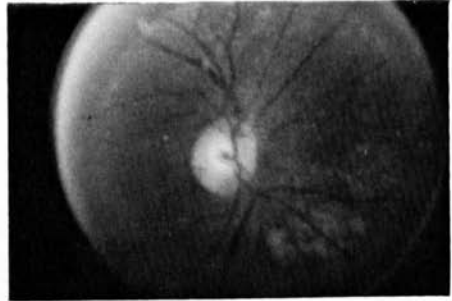
It was differentiated from the following conditions:

- (1) Miliary tubercles of the choroid, a severe inflammatory condition rapidly producing vitreous opacity.
- (2) Disseminated choroiditis, producing white scarring, pigmentation at the margins and scotomata at the patches.
- (3) Congenital multiple colloid bodies (DRUSEN) showing bright shining white dots all over the fundus (IDA MANN 1957).
- (4) Colloid bodies in the choroid, as a senile or pathological change, (DUKE-ELDER 1962), showing few scattered yellow-white spots each raising the retinal pigment epithelium in front producing a pigment halo around (WOLFF 1951).
- (5) Tay's central choroidal atrophy, affecting the macula with colloid bodies and producing some scotoma.
- (6) Diabetic retinopathy, showing hard white dot exudates, micro-aneurisms and dot haemorrhages.
- (7) Onchocerciasis, a heavily endemic disease here, which may produce



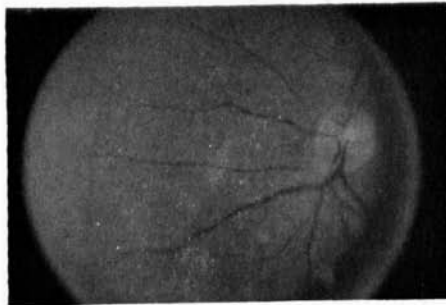
NO. 1

Hypopigmented spots in left fundus. A.D. female aged 37 years. Tuberculoid macules on back neck and chest 4 years, now healed.



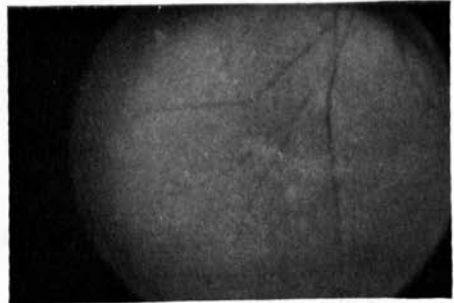
NO. 2

Hypopigmented spots in left fundus. Same patient as in photo No. 1.



NO. 3

Hypopigmented spots in left fundus. E.N.B. female aged 30 years. Lepromatous Leprosy infiltrations of the body with some facial involvement, many years, now improving on treatment.



NO. 4

Hypopigmented spots in right fundus. M. M. male aged 45 years. Lepromatous Leprosy of long duration, face not involved, now improving on treatment.

fundus changes as choroidal sclerosis, retinal pigmentations (BUDDEN 1962) and white salt-like deposits (MANSON-BAHR 1961) with gross visual defect, but so far not reported to have produced pure depigmentary patches in the choroid. Moreover the skin snip test for onchocerciasis was negative in present cases concerned.

POSSIBLE RELATION TO LEPROSY

It makes more sense to think it as related to leprosy rather than a rare form of unknown congenital anomaly seen in a few leprosy patients only. On the other hand the literature reveals two facts: (1) presence of leprosy bacilli in the choroid were frequently seen in histopathological slides (PRENDERGAST 1940) even without choroiditis and (2) Hypopigmentation due to defective melanogenesis is one of the characteristics of infection by

leprosy bacilli brought about by some unknown biophysical and biochemical mechanism (KHANOLKAR 1955). These support the possibility that hypopigmented patches in the choroid are caused by slowed-down melanogenesis in the same way as it occurs in skin in leprosy.

COMMENTS

In the absence of histopathological examination the true nature of this condition remains unknown. From the appearance and by clinical elimination the disease appears to be hypopigmented spots in choroid.

Although the appearance is somewhat alarming, it is in fact a benign condition not affecting vision at all. The rest of the eye did not have any other leprotic lesion as well.

As the spots are merely a matter of colour contrast, it is pronounced and easily detected in the fundi of dark Africans.

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