

## TUBERCULOID LEPROSY IN SOUTHERN RHODESIA

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During the visit of Dr. H. W. Wade, of the Leonard Wood Memorial, to this hospital in October, 1931, the subject of tuberculoid leprosy was discussed and one case was demonstrated among the approximately 300 inmates then here. This presented characteristic lesions of the sort subsequently described by Wade as seen in South Africa.<sup>1</sup> Since that time I have been on the lookout for other cases of this nature and have come across 6 out of a total of about 700 patients. Notes on these cases are given here, for it seems desirable to accumulate information with regard to the condition and its frequency in different parts of the world. There would seem to be differences with regard to the latter point, at least; apparently it is quite common in some places but not in others. Here in Rhodesia it seems not at all frequent, and I have the impression that in Nigeria it must be rare, for I do not recall seeing any case that would be recognized as of that variety during my twenty years of medical work in that region.

The following notes pertain to the six cases referred to. In one other case with ordinary cutaneous-type lesions there were other lesions that appeared to be of tuberculoid nature, but this presumably mixed case is not included in this series.

CASE 1, Kafula (169B), a well-nourished, English-speaking man aged about 30, admitted September 26, 1931. History of one year duration, starting with sores on left fourth finger and penis. When examined there was a well-marked area on the face, thickened, reddish, scaly, with raised edges; also healed ulcers on the glans penis. Anesthesia about an ulcer on the border of the left hand, and on the fourth and fifth fingers. Both ulnar and peroneal nerves enlarged, especially the left. Smears from the ear and nose negative. Considered prob-

<sup>1</sup> WADE, H. W. Tuberculoid changes in leprosy. I. The pathology of tuberculoid leprosy in South Africa. *Internat. Jour. Lep.* 2 (1934) 7.

ably syphilis, and given kharsulphan. Seen with Dr. Wade on September 30, 1931, who diagnosed it as "tuberculoid leprosy." By November, 1932, the lesion of face had absolutely disappeared. All fingers of the left hand had become flexed, with wasting of the intermetacarpal muscles. Left ulnar and peroneal nerves both greatly enlarged, the ulnar enormously so; both were tender. Anesthesia of left fourth and fifth fingers, also part of the dorsum of left foot and third and fourth digits. No nasal ulceration, but septum perforated. Smear from ear negative, but one small bundle of a few bacilli found from the nose; probably unreliable. Two examinations during 1933 revealed no signs of activity, and the patient was discharged in May, 1934.

CASE 2, Dapasi (172A), a well-nourished man aged about 25, admitted October 29, 1931. History of three years duration, the first lesion a hypopigmented area on the external surface of left arm. On admission there were several well-marked hypopigmented areas with definite raised edges, including one on the nose. All anesthetic except one on right buttock. Both ulnars and both peroneals slightly enlarged and tender. Smears from ear, nose and skin lesions negative. In May, 1932, the area on the nose was unchanged; others still well-defined, edges raised, scaly and papular. Nerves still tender. The only anesthetic lesion was one on the left arm. In November the macules on the nose and left arm had largely disappeared; the others were normal centrally, the edges papulate, hypopigmented and scaly. A year later there was further improvement; a small purplish area remained on the nose, a raised-edged macule on the scrotum, and the areas on the back had well-marked papular edges of light brown color. Superficial anesthesia of the areas on the back, none of that on the left arm. Both peroneals tender. In May, 1934, the scrotum lesion had disappeared, the edges of the back areas were still hypopigmented but no longer papulate; the centers were normal in color. Only the left ulnar nerve was thickened. All smears made, including some from the scrotal lesion, negative. (Photograph, Plate 13, Fig. 1, taken August 7, 1934.)

CASE 3, Chekaisero (195B), a tall, rather thin man aged about 35, admitted March 1, 1932. History of beginning one year before, with swelling of upper lip and around nose. The condition seen, which had existed only four months, was a well-defined area on the forehead and face, tuberculoid in appearance, of purplish color with a smooth raised edge; both eyelids were everted. A small circular, raised, hypopigmented, scaly area was on the left patella, another on the left thigh, and several smaller ones elsewhere. Much ulceration of the nasal mucosa. Left ulnar thickened, not tender. All of the macules anesthetic. In November of the same year the raised edge of the facial lesion had disappeared in the lower part. Smears negative.

CASE 4, Musara (239), a well-nourished woman aged about 25, admitted March 8, 1933. History of about one year duration, starting with an ulcer on the left leg. When seen there was on the face a raised, purplish area, typically tuberculoid. Both ulnars thickened but not tender. Anesthesia on dorsum of left foot. Smears from ear and nose negative, but in November, with the facial condition and the skin generally unchanged, bacilli were obtained from the ears; they were very scanty, scattered and in small loose clumps. In May, 1934, similar findings were gotten from both the lesion over the bridge of nose and

the left ear, and in July, when the skin lesions had disappeared, scanty small clumps of dotted bacilli were still to be obtained from the ear. (Photograph, Plate 13, Fig. 2, taken August 7, 1934.)

CASE 5, Mabfumo (271B), a well-nourished man aged 25, admitted November 17, 1933. History of one year duration; the first lesions were nodules on scrotum. When seen there were raised-edged, infiltrated, distinctly hypopigmented areas, of crushed-paper appearance with some scaling, on the left upper arm, shoulder and thumb, back and palm of right hand, left calf, toes of both feet, and right nostril. The scrotum was macular. The left ulnar and both peroneals were thickened and more or less tender. Anesthesia of the fingers and a hypopigmented area on back of right hand, slightly on left hand, and the dorsa of both feet. Smears from the nose and scrotum negative. In June, 1934, the skin condition was improved, nerve tenderness found only in left peroneal, anesthesia only on the dorsa of the feet and over the left shoulder and elbow. Smear from the scrotum negative.

CASE 6, Shone (280A), a well-nourished man aged 30, admitted on January 15, 1934. History of over one year duration; primary lesion uncertain. On examination the skin showed areas of marked infiltration and hyperemia; one such, obviously tuberculoid, was over the bridge of the nose and the nostrils. Ears infiltrated and nodular. Hands and feet much swollen. Both groups of peroneals also thickened, none tender. Anesthesia over upper ulnar border of both hands and fourth and fifth digits, also dorsa of both feet. Smears from left ear positive, scanty small clumps, both January and June; one small clump found in smear from a carbuncle in June. (Photograph, Plate 13, Fig. 3, taken August 7, 1934.)

#### DISCUSSION

Inasmuch as my diagnosis of some of these cases may not be agreed with, I will summarize what I regard as pathognomonic signs of the tuberculoid lesion as seen among the natives of Southern Rhodesia.

1. The case is usually a "neural" one.
2. The edge of the lesion is sharply raised and smooth.
3. The surface is rough, pebbled, "mico-papular."
4. The color is a peculiar, characteristic purplish tint.
5. There is little or no anesthesia.
6. Bacteriological smears from the lesions are negative.

In his article referred to Wade does not mention the peculiar purplish color. In the case Kafula, which he saw here, the lesions of both the face and the glans penis were of such a color, too dark for simple hyperemia, reminding one of a purple cherry. This I have come to regard as characteristic, at least of the condition as seen among our people here, and I now diagnose "Wade's tuber-

culoid" at sight from the color and the raised edges, and find that the other features are always present.

The description "rough and pebbled" needs some comment. The surface is much less rough than the ordinary raised anesthetic macule, and is not covered with white scales as anesthetic macules often are. Wade's term "granular" describes it better, or "micopapular" as Jadassohn calls it. The whole surface is of the color described, which shows through any slight scaliness or mealiness that may be present. It will be noted that the lesions in my cases have been mostly on the face.

With regard to disturbances of pain sense, temperature perception and perspiration little information has been obtained from our patients. Their intelligence is such that it is difficult to obtain reliable results from tests. However, it is hoped to go further into this matter later.

Ordinary rods or dots of *Mycobacterium leprae* are certainly absent from these lesions. I have searched for them most carefully but have never found them, with either superficial or deep puncture, though in two of these six cases bacilli were found elsewhere. In a third case, Kafula, one small clump of bacilli was found in a smear from the nose after repeated examinations, but this finding was not duplicated and is considered doubtful.

It has been my experience that these lesions react very quickly to treatment by intramuscular injections of iodized esters and generally soon disappear. This is in contradistinction to the ordinary maculo-anesthetic variety of lesion, which is usually very persistent and often permanent.

#### DESCRIPTION OF PLATE

##### PLATE 13

FIG. 1. Case 2. The small raised lesion on the ala nasi and cheek—all that remained of a much larger lesion.

FIG. 2. Case 4. Raised edges of purplish macules on the forehead, nose and cheek.

FIG. 3. Case 6. A raised-edged lesion on the nose.



PLATE 13