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A CASE OF LEPROSY IN A BRITISH SOLDIER.

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LEPROSY occurs so rarely amongst soldiers of the British Army that a medical officer confronted with an unusual skin lesion might be forgiven for not at first thinking of it as a possible diagnosis. In fact, there have been but two such cases in the last ten years; in one the diagnosis was not made until seventeen years after he had left the Army, and the other was a boy who enlisted in India and had been born and brought up there. No excuse, therefore, seems necessary for publishing the present case, as the title alone may act as a reminder that rare as such cases are they do
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occur, and the earlier the diagnosis is made and treatment started the better is the prognosis.

A Signalman, aged 27, was admitted to the Military Isolation Hospital, Aldershot, on February 28, 1938, the diagnosis of leprosy having been confirmed bacteriologically that day. His history was as follows: He was born in April, 1911, at Fort Blair, Andaman Islands. His mother, one brother and two sisters were healthy, as was his father when last seen in 1931. He could not recollect any member of the household having been afflicted with any skin or other disease. From 1913 to 1920 he lived in Jhansi (India); from 1920 to 1927 he was in Saugor (India), and from 1927 to 1929 in Allahabad, U.P. After this he stayed for four months in Calcutta with his stepfather, who was healthy, and then in Shillong until he joined the Army in June, 1930.

In the Royal Corps of Signals he served in Jubulpore (till September, 1932), Rawalpindi (till January 1, 1936), Mohmand Operations (1935). During this period he was three times on leave in Peshawar.
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Before the apparent onset of his present condition he had enjoyed excellent health, except for one month in hospital in 1931 with bronchitis, the result, he thought, of having become chilled after a vigorous game. He used to represent his unit at various sports.

In January, 1936, he sailed for England and was here until September 14, 1936, when he sailed for Palestine. During the latter half of the voyage he used to sunbathe each day. He noticed one day some reddish spots on the inner side of the upper part of each thigh which he knew had not been there before. These spots, which at first were only a millimetre or two across, very gradually grew until they were about five millimetres or more. Gradually they turned a brownish red colour, while at the same time further groups of spots appeared above and below the original site, each spot going through exactly the same slow changes. The leopard-skin effect thus produced was enhanced by the sallowness of his normal skin. The spots did not itch or cause him any inconvenience other than that resulting from their odd, unsightly appearance. He first reported sick in October or November, 1936, and subsequently while he was being kept under observation.

So slowly did the lesions advance that it was not until March, 1937, some six months later, that the spots reached the level of his waist. Continuing their steady advance up the body, they reached the face in July, 1937. He appeared not to have noticed the essentially nodular nature of these "spots" until they had reached his face. Here they did not begin as red "spots" as had all the previous lesions, but as "lumps" of no special colour other than that of his normal skin which in that site was well tanned.

Since the first appearance of the lesions in September, 1936, he had felt perfectly fit and well. There had been no "colds" or feverish attacks. He had played games, attended dances, and, in fact, appeared to have suffered remarkably little inconvenience from the disease.

On December 14, 1937, he returned from Palestine, and after taking some leave in England returned to duty in this country, and was admitted to hospital on February 28, 1938, as already stated. By this time the diagnosis of leprosy was an obvious one to make, and it was confirmed quite easily in the Leishman Laboratory by Lieutenant-Colonel L. Dunbar, R.A.M.C., who found a fair number of lepra bacilli in a smear made from some nasal mucus, and large clumps of lepra bacilli in a smear made from nicking a small nodule chosen at random under the chin.

His condition on admission to hospital was as follows: Temperature and pulse-rate were normal. His face was completely covered with thick nodules of the same colour as that of normal skin. Some thickening of the forehead and a thickened nose gave him a rather leonine appearance which was not so well marked as it may be in an advanced case. The
evil expression given to his face by the disease was offset by his pleasant
smile; fortunately he was a cheerful fellow and had retained a sense of
humour. There was no loss of eyebrows, the eyes were unaffected, and
there was no apparent nasal discharge. Tongue and throat were normal,
and palpation of the lobules of the ears revealed no abnormal thickening.
Rogers and Muir (1925) state that the auricles are perhaps more constantly
affected than any other part of the body.

It is notable that in spite of the widespread lesions on the face the
scalp was not palpably affected. This accords with the usually accepted
belief that leprous lesions seldom or never occur in the scalp.

The arms, trunk and legs were fairly symmetrically covered with what
at first sight might have appeared to be brown macules of varying sizes
and shapes. But by using oblique lighting on the skin, or by lessening
the tension of any selected area of the skin, the nodular nature of these
brown patches was clearly demonstrated. Palpation confirmed that they
were nodules in the skin. They were well marked on the arms, back,
buttocks and thighs. Diffuse streaks of brown pigmentation appeared
from under each anterior axillary fold. Neither the palms nor the soles
were affected, and there was no ridging or other abnormality of the finger
or toe nails. There was some induration and quite well marked prominence
of the left nipple. This is a very common feature of this type of the disease. The right nipple was not affected to quite the same extent.

His voice was slightly husky, but the patient himself was surprised
when questioned on this point and appeared not to have noticed any change
in his voice. As the voice is stated often to be affected owing to laryngeal
involvement, it is probable that the slight huskiness of voice detected in
this patient was not normal for him, but that the onset had been so insidious he had not noticed any change.

As a general rule the more the skin is affected the less are the nerves
involved, therefore it was not expected in this case with such a widespread
involvement of the skin that much evidence of nerve affection would be
found. Thus, the cranial nerves were normal. Muscle tone and power
were normal. All reflexes, superficial and deep, were normal and equal.
No thickening of any nerve was detected. There was no pain, no hyper-
aesthesia, and no anæsthesia other than that to be mentioned. There
were no ulcerative lesions or blisters, and no area of depigmentation of
skin was seen.

Testing every inch of his body surface with a wisp of cotton wool
revealed only one patch of anæsthesia, about four inches long by three
inches wide, over the region of his right patella. In this area there was a
large plaque of very thick coarse skin raised above the level of the remainder
of the skin and darker in colour than the rest. Rogers and Muir
recommend that this very important test for anæsthesia should be performed.
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with a spill of paper and that the patient should be made to point with one finger to the place where he thinks he is being touched, this method being more likely to lead to the detection of a small patch of anaesthesia than the method normally used to perform this test. In discussing whether or not to test for the presence of other forms of sensation, they point out that it is best for diagnostic purposes to limit the search to loss of superficial touch as this makes the only clearly defined demarcation between nerve and skin leprosy. Thus it is possible, as was demonstrated later in this case, for the patient accurately to localize the site of a light touch and yet not feel any pain when this area of skin is pricked with a needle.

The Wassermann and Kahn reactions of the blood were negative. The blood sedimentation-rate was three millimetres in one hour (Westergren).

Discussion.

Considerable differences of opinion have existed as to the length of the incubation period, but more recently the tendency has been to regard this as being shorter than was originally thought. In eighty-four cases collected by Rogers it averaged two years and eight and a half months. As this disease may start insidiously, unobserved by the patient owing to the painless nature of its onset, and may be latent for several years, it is often impossible to say what the incubation period has been in any given case. Thus, in the present example no definite evidence whatsoever was obtained of the patient having been in contact, sexually or otherwise, with a leper, and so the incubation period is unknown. It is possible that it was longer than the average owing to the excellent health which this patient had enjoyed throughout his life.

It is not proposed to discuss details of drug treatment, nor were any special drugs ordered for him during the short time he was a patient in hospital. It is of interest to mention, however, that before he was admitted to hospital he had received four intramuscular injections of ten cubic centimetres of his own blood, during the course of three weeks. The apparent result of this treatment was a very marked reduction in the size of the nodules on his face, so that the patient was able to state that whereas before this treatment started he had been "unrecognizable," his face now bore some resemblance to its original state before the disease began. Two further similar injections were given whilst he was in hospital, and further improvement could be seen in the lesions on his face and elsewhere. It is presumed that the results apparently produced by these injections indicated that the patient had acquired some degree of resistance to the disease. The normal blood sedimentation is also of interest in that it gave confirmatory evidence that a good degree of general resistance existed.
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LITERATURE.

**NEISSERIA CATARRHALIS ISOLATED FROM THE BLOOD-STREAM OF A CASE OF BENIGN TERTIAN MALARIA.**

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This was a typical case of malaria in which a possible cause of the abnormal features was demonstrated.

The patient, an officer, aged 23, was admitted to the British Military Hospital, Sialkot, on September 23, 1937, complaining of headache and general malaise. He had been in India for about seven months, and gave a past history devoid of any medical interest. A few days previously he had returned from a stay of two months in a malarious district. Up to the previous day he had been perfectly fit, but that evening, feeling unwell, he had gone to bed early. Next morning he took his own temperature and found it to be nearly 104°F. He was seen at his own quarters, and admitted to hospital.

On admission he complained of no special symptoms except a general malaise.

Physical Condition.—A healthy looking, well built man. Face flushed. Conjunctive injected. Teeth and throat normal. Pulse 88, of slow, full type. There was no abnormality of the cardiovascular, respiratory or central nervous systems. A "three finger" spleen was present.

A blood-film revealed benign tertian rings. He was put on fluids, and during the day was given 20 grains of quinine. That evening at 10 p.m. the temperature rose to 104·6°F. Aspirin 10 grains and a simple diaphoretic mixture were administered, and induced a satisfactory perspiration, following which the temperature dropped to 103·6°F., and later to 102·6°F. The following day 20 grains of quinine were given by the mouth, and that evening on the temperature rising to 104·8°F., 12 grains were given intravenously. On each of the three succeeding days 40 grains were given by the mouth. On the morning of the sixth day in hospital the temperature had fallen to 99°F., and the routine quinine-plasmoquine course was commenced.