after the passage of the fragments well compensates for any unpleasantness experienced by patient or physician.

REFERENCE.
1 *Lancet*, 1907.

A CASE OF TUBERCULAR LEPROSY.

By M. MACKINNON,

MEDICAL SUPERINTENDENT, DREADNOUGHT HOSPITAL, GREENWICH.

LEPROSY is a disease which is comparatively rare in this country and the cases that one occasionally meets with are, as a rule, patients who are natives of districts in which the disease is prevalent or have resided in such area for a number of years. The latter are rare, and even in the tropics where the disease exists with most frequency, its occurrence now is extraordinarily diminished, and in Norway, Russia and Greece, where the disease used to be very common, the percentage of cases that occur annually is much on the decline.

There are two kinds of leprosy—tubercular and nerve leprosy, though occasionally mixed forms also occur. The case which I am about to relate is a typical example of the former with as yet no indication whatever of the nerve type.

The patient, L. W., was admitted into the Seamen's Hospital about the middle of May with the appearance shown so well in the photograph. The face and feet were covered with a hard crusty exudate. The skin of the forehead was wrinkled, indurated, and nodular; the eyebrows fell over the eyes, lips thick and hard, and covered with crusts; the cheeks were hard and massive with large nodules; the whole producing a picture of the so-called

native of Barbados, 29 years old, and left his native home ten years ago, and has only been twice home during that period. He admits having seen cases of leprosy, but never came in contact with any. He first noticed one or two enlarged glands below the angle of the jaw on either side; they were hard and painless at first, but in the course of a few weeks got rather tender. Gradually small nodules formed on his forehead and cheeks, and soon after the wrist-joints became swollen and tender, and the ankles thickened and nodules formed here and there along his thigh and up the forearm. The nodules increased in size and number, and the patient felt that he was getting weaker. In the course of about twelve months the nodules on his face began to exude a glairy exudate, which, on drying, formed hard crusty masses all over his face. His lips

got extremely thick and crusty, and his teeth covered with sordes, with the result that his mouth and throat got very septic. He visited several hospitals, and on each occasion was told he was suffering from an intractable form of syphilis, and as such was ordered admission to this hospital. On admission the temperature was 99° F., but it gradually got higher, and in the course of a week it was up to 103° F., kept between 100° and 102° for seven days, and then came down to normal. For the next seven days it varied from normal to 100° F., and the following week again rose to 104° F., and for the following seven days varied from 100° to 103° F., and then dropped to normal, remaining fairly stationary for another week, and then rising again.

This high rise of temperature occurred fairly regularly about every other week, and during the high fever the patient had very severe pains all over him, not particularly confined to the joints. In the course of a few weeks several more nodules were discovered along his forearm and thighs, varying in size from a pea to a walnut. This variation of temperature was in all probability due to the septic condition of his mouth and

throat, and, although regularly gargled and syringed with antiseptics, his temperature remained very unsettled.

Fig. 1.—Section from a nodule, showing clumping arrangement of bacilli.

Fig. 2.—Swab from the throat, showing clusters of leprosy bacilli with a few epithelial cells.

“*facies leontina*” which is described as characteristic of this disease.

The disease commenced four years ago, nine months after the patient came back from a trip to Barbados. Patient is a

The diagnosis of leprosy was come to—*first*, by the general appearance of the patient; *secondly*, by the marked wasting of the thenar and hypothenar eminences

and of the interosseal, and the general distribution of nodules all over the body; *thirdly*, and most important, by the discovery of the leprosy bacillus.

With a sterilized platinum rod some of the nasal and throat discharges were smeared very thinly on a glass slide, dried, and stained with carbol fuchsin in exactly similar way to the method used for demonstrating tubercle bacilli. Both bacilli retain the carbol fuchsin stain after being treated with weak sulphuric acid.

The leprosy and tubercle bacilli resemble each other in size, shape, and staining properties, but the former tends to accumulate in masses, and, from the drawing taken, this clumping arrangement can be seen in a marked degree.

The bacillus can also be got by scraping a nodule with a scalpel until a little serum exudes, laying this on a slide, and staining it. This latter method, however, is rather painful if local anaesthesia is not used, and if there be no anaesthesia of the skin. In this particular case the skin has been tested from time to time, but no anaesthesia whatever can be made out. If anything, the skin is hyperaesthetic at certain places.

The recognized treatment of this malady is by one or other of three drugs—Chaulmoogra oil, arsenic, or mercury, but preference is given in most cases to Chaulmoogra oil, as distinctly beneficial results have been obtained by its regular and long-continued use. In cases like the above, where there are extensive nodules, and the formation of a crusty exudate on the skin, local as well as constitutional remedies must be applied.

Sir Malcolm Morris, by whose kind permission I publish this case, uses the following ointment for the skin, rubbed in twice a day:

R.	Ac. salicylic.	...	...	...	gr. xx.
	Ichthylol	...	...	...	5 ss.
	Hydrarg. oleates, 10 per cent.	...	...	...	3 ss.
	Zinc oxid.	...	...	...	gr. xxx.
	Vaseline	...	...	...	ad 3 j.

In addition the oil is given in capsule commencing with 10-m doses three times a day, and increasing the dose gradually, until about 1 drachm is tolerated thrice daily. Under the above treatment this particular patient has vastly improved. The nodules have subsided, and in many places disappeared altogether. Whether this improvement, however, will continue is doubtful, as the ultimate prognosis in all cases of leprosy is extremely unfavourable.

KALA-AZAR IN THE ROYAL NAVY,*

WITH ILLUSTRATIVE CASES.

By FLEET SURGEON P. W. BASSETT-SMITH, R.N.
(Communicated by permission of the Director-General, R.N.)

WHILE employed in a naval hospital at home, and dealing with diseases from foreign stations, it is one's fortune to meet occasionally with some of the more obscure cases of irregular fever and cachexia, the etiology of which is unknown or only partially known. Of the latter, the disease called kala-azar, Dum-dum fever, etc., is of particular interest, especially when attacking Europeans, or when it has been possible to demonstrate the parasitic organism. That the disease is more common than is usually supposed is very likely: I can look back on 4 cases under treatment in my wards in which the clinical evi-

dences were very strong, though it is only in the present instance that proof has been obtained; for want of this proof the other cases were returned as "splenic anaemia." In the latest account of the disease, by Leishman, the original endemic centre in Assam and Bengal has been widely extended, though definite cases from other regions

Fig. 1.—Hepatic blood multiplied 1,000 times.

are not common. He mentions Southern India, Ceylon, Burma, China, Egypt, Tunis, and Algeria. In my 4 cases the first contracted his illness in South Africa; the second was originally a merchant seaman, and had been much to India. In both the symptoms were typical—very large spleens, very low white blood counts, and relative very low polymorphonuclear counts. In both 2 c.cm. of blood was drawn off from the spleen with negative results. These cases were fully reported in the BRITISH MEDICAL

Fig. 2.—Citrated culture forty-eight to seventy-two hours. Leishman bodies. Kala-azar.

JOURNAL of November 11th, 1905. I attribute the want of success in finding any parasitic organisms then to the large quantity of blood drawn off and not to their being absent from the organ.

Case 3 was a chief stoker, aged 38. There was a history of chronic anaemia, commencing while in South Africa, attended with slight fever, recurrent haemorrhages from nose, stomach, and bowel (at times severe); great enlargement of the spleen, a reduction of the red cells to 2,000,000, the white being 2,100, and haemoglobin 40 per cent. The

* Read before the Society of Tropical Medicine and Hygiene.

Fig. 3.—A, Admitted to Haslar. B, Blood from liver; Leishman bodies abundant. D, Discharged from Haslar.