

Indian Medical Gazette

JANUARY

PERIPHERAL NEURITIS

DURING the evacuation of Burma, a large number of soldiers and civilians had to tramp some hundreds of miles in very rough country; many were subjected to considerable hardships including a gross insufficiency of food. Some of these evacuees arrived in India in a deplorable physical condition and obviously undernourished, and it was not unnatural that medical men attending them readily diagnosed specific nutritional deficiencies in these subjects. A condition suggestive of the polyneuritis of beri-beri was noticed on some of the evacuees, and this condition was put down to vitamin B₁ deficiency.

A number of persons with this label came into the hospital attached to the School of Tropical Medicine for further investigation. Whilst there was no doubt that the majority of these patients had been on a very defective diet, there were others with a similar condition whose diet had not been particularly deficient, at any rate not markedly deficient in vitamin B-complex. It therefore seemed necessary to consider other causes for the multiple neuritis displayed by these patients.

Many of the causes of toxic neuritis could be excluded, e.g., alcohol and lead, but amongst those that had to be considered was diphtheritic neuritis. In the absence of any history even suggestive of faucial diphtheria in any of the cases, or even amongst other evacuees, this possibility might also have been discarded, except for the fact that all—as well as some other patients, who were not evacuees but had been trekking in the Assam Hills, with the same condition—gave the same history of having suffered from sores on their bodies and limbs within the previous few months. These sores were usually described as Naga sores.

The causal organism of these so-called 'Naga sores' is a fusiform bacillus which is usually present in association with a spirochæte, and also very frequently with a diphtheroid organism. This diphtheroid does not appear to be itself capable of causing an ulcer, for its experimental inoculation does not cause a sore, at least it did not in the cultures we have investigated, but it is possible that in other Naga sores the true Klebbs-Loeffler bacillus may sometimes become engrafted. In an investigation carried out at the School of Tropical Medicine some years ago on two patients sent down from the Chittagong Hills (the same group of hills through which many of the evacuees trekked), with the story that the ulcers they displayed were typical of a special type of ulcer that was

common in these hills, and popularly known as *garigha*, it was found that there were no fusiform bacilli present, but that the main organism isolated from the sores in both patients was a diphtheroid, indistinguishable from *Corynebacterium diphtheria* both morphologically and culturally; this organism when injected produced local lesions from which it could again be recovered. These ulcers were not typical Naga sores, but they certainly bore little similarity to the shallow veld sore, which is now recognized as being caused by *C. diphtheria*.

The causal organism of veld sore is considered to be the true Klebbs-Loeffler bacillus, and it is recognized that these sores often appear in epidemic form, that they may be associated with epidemics of faucial diphtheria, that they respond to local treatment with anti-diphtheritic serum, and that they may be followed by a temporary peripheral neuritis.

Peripheral neuritis has not been described as following Naga sore, but the writer has seen a few cases in which this sequel occurred. Moreover those people who normally have these sores are primitive people who do not readily attend hospitals or come under accurate observation, and it is possible that peripheral neuritis is not so rare a sequel to Naga sore as it appears to be.

The diphtheria toxin is absorbed at the site of the lesion, passes up the afferent nerve fibres to the cord and/or brain, where it first affects the motor cells, then diffuses to neighbouring cells, and is finally distributed widely by the blood, so that there are at first paralyses of the muscle groups in the vicinity of the local lesion, and then of neighbouring groups, and finally both sensory and motor fibres of other nerves are affected. These sensory changes are often overlooked, as children, who form the bulk of patients with faucial diphtheria, are naturally not so conscious of them.

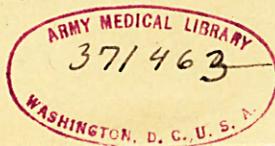
In the Burma evacuees, sensory changes were very prominent and in a few cases seemed to be unaccompanied by any motor defects, but in all the worst cases, paresis was also very prominent.

Another point was the late appearance of the symptoms and the fact that they did not always seem to appear first in the limbs where the ulcers were, but again this was usually the history obtained when the patient was questioned carefully.

The Schick test was done in several of our patients, and without exception the result was negative, a finding which is in keeping with the suggestion that they had had a diphtheritic infection recently.

In all the patients seen by us (and all the others about whom we have been given details), the condition improved steadily, whatever the treatment given. It seems very doubtful if the large quantities of vitamin B₁ given to these patients affected the rate of progress.

It would be interesting if the bacteriology of the ulcers could be studied more carefully and all



diphtheroids identified accurately. Next rainy season will probably afford an opportunity for such a study.

Further, as Naga sore is always with us, it is to be hoped that clinicians will make careful

enquiries regarding the occurrence, or otherwise, of these neurological complications amongst sufferers, especially those who live in, or near, the range of hills that separates Assam from Burma.

L. E. NAPIER.

Medical News

INDIAN MEDICAL SERVICE (E.C.) PROMOTION TO RANK OF MAJOR

THE Government of India have decided, with the approval of the Secretary of State for India, that Emergency Commissioned Officers of the I.M.S. of 10 years' standing or more shall be eligible for promotion to rank of Major. The period of 10 years shall include, in addition to previous full pay qualifying commissioned service, any period of antedate that may be granted to an individual officer.

Credit for previous commissioned service and antedate shall be subject to a maximum of 10 years.

Hitherto only doctors recruited as specialists among the Emergency Commissioned Officers in the I.M.S. have been eligible for promotion to the rank of Major.

THE MENACE OF THE HOUSEFLY

FLIES are generally known to be carriers of disease, but not many people in India realize the full extent of the menace. Houseflies can be carriers of such intestinal diseases as typhoid, cholera and dysentery and also probably help to spread other diseases including tuberculosis and ophthalmia. The nature of the threat to human health from houseflies and the manner in which these pests can be controlled are explained in a small bulletin 'The House-Frequenting Flies, their Relation to Disease and their Control' by Dr. I. M. Puri of the Malaria Institute of India, which has been published by the Manager of Publications, Delhi, as Health Bulletin No. 31.

After some introductory passages dealing with flies and their habits and showing by means of illustrations how they spread disease, Dr. Puri explains how various house-frequenting flies can be identified. He next shows how these creatures act as carriers of various diseases and goes on to explain how the threat can be averted by preventing egg-laying and breeding and by the use of screens and by trapping and killing adult flies.

It is hoped that this bulletin, which is available from all sellers of Government of India publications at six annas a copy, will be of use not only to Public Health officials but also to the general public.

MALE NURSES FOR MILITARY HOSPITALS: IMPROVED TERMS OF EMPLOYMENT

LAST April the Government of India in a press note announced their intention to recruit male nurses for military hospitals during the present emergency.

They are now pleased to announce improved terms and conditions of recruitment in respect of this category of medical personnel. The scale of pay has been raised from Rs. 50-5-75 to Rs. 75-5-100 with an additional emergency allowance of Rs. 25 per month. Male nurses will be given the rank of Warrant Officers, Class I, in the Indian Medical Department and on appointment will also be entitled to travelling allowances as for second grade officers.

CIVILIAN DOCTORS IN MILITARY HOSPITALS: REVISED RATES OF PAY

IN November 1941 the Government of India announced their decision to recruit civilian doctors (licentiates) for duty in military hospitals in India, on a salary of Rs. 100 per month (consolidated) for those employed in one military station, and Rs. 120

per month (consolidated) for those employed for duty in one military district.

They have recently considered the question of an improvement in the salary of those doctors and are now pleased to announce that with effect from 23rd October, 1942, civilian doctors (licentiates) employed in one military station will be granted a salary of Rs. 120 per month (consolidated) and those employed in one military district Rs. 160 per month (consolidated).

PREPARATION OF DRIED BLOOD PLASMA IN INDIA

EXPERIMENTS which have been carried out with improvised desiccating machines in Bombay and Calcutta show that dried blood plasma can readily be manufactured in India and that, provided sufficient donors come forward, there is nothing to delay production on a large scale as soon as the desiccating machines which have been ordered from America, and one of which has already reached India, are installed.

The Calcutta experiment with a locally improvised machine was carried on at the All-India Institute of Hygiene and Public Health with funds provided by the Indian Research Fund Association. In Bombay the Haffkine Institute has set up a similar improvised machine, the funds for this having been provided by the local Government. The amount of dried blood plasma that these two machines are turning out is small but the experiment has served a useful purpose.

The first machine received from America has been set up in the All-India Institute of Hygiene and Public Health, Calcutta, and the second, when it arrives, will be placed in another suitable centre, and it is estimated that these two machines can produce over 100 pints of the dried product every week. It will only remain for donors to come forward in sufficient numbers for large-scale production to begin.

The preparation of blood plasma in the dried state, as is well known, is a highly technical process which enables the essential elements of blood to be preserved practically indefinitely and to be transported safely to any part of the world for use.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

RESEARCH CHAIR IN OPHTHALMOLOGY

APPLICATIONS are invited for the appointment of Research Professor in Ophthalmology tenable at the College and the Royal Eye Hospital, London, S.E.1.

The appointment is for five years in the first instance, with a salary of £1,200 per annum.

The appointment is a whole-time one, and the professor will normally be required to devote part of his time to the duties of a Surgeon at the Royal Eye Hospital and the remainder to Research work at the Royal College of Surgeons. Further information will be given on request.

Applications should reach the Secretary of the Royal College of Surgeons on or before the 1st March, 1943, accompanied by a statement of qualifications and experience and the names of three persons to whom reference may be made.

Kennedy Cassels, *Secretary.*

Applications by cable to Royal College of Surgeons of England.

Lincoln's Inn Fields, London, W.C.2.