

THE DUBLIN JOURNAL

OF

MEDICAL SCIENCE.

NOVEMBER 1, 1904.

PART I.

ORIGINAL COMMUNICATIONS.

ART. XVI—*Notes on some of the Fevers met with in India.*^a

By HOWARD CROSSLE, M.D. Univ. Dubl.; Lieutenant,
Indian Medical Service, Bombay Presidency.

I do not intend to deal with the different types of malarial fever and plague, as malaria is a very large subject in itself, and I have not had much experience with plague.

Enteric Fever.—Though not long ago it was actually denied that there was such a fever in India, it is now recognised as one of the greatest scourges to the British army out here. It is the chief cause of death, averaging over 25 per cent. of the total mortality. Among the natives enteric is uncommon, but cases have been noted in all castes. It is believed that the native, when a child, suffers from enteric just as children at home do from measles.

Enteric is most liable to occur in young people who have only recently come out to India. On the other hand, the greater the age and acclimatisation of the men, the less enteric occurs.

The modes of conveyance of this disease have been discussed lengthily and deeply. Schüder divides them into—70 per cent. water; 17 per cent. milk; the rest, other causes.

^a A Thesis for the Degree of Doctor of Medicine in the University of Dublin, June, 1904.

Infection by water is a common cause, but not an exclusive one, as the soil plays a large part in conveying the disease. Some parts of India are plagued with dust storms during the summer, and it has been noticed that enteric is most prevalent then. The dry earth system of latrines is very likely to spread infection if the earth is primarily infected. Soil pollution has much to do with the occurrence of sporadic cases, and where the soil is purified by proper drainage there is always a fall in the death-rate. Enteric is often caused by infected food. Milk is a dangerous spreader of infection, as it is a good nutrient medium for the growth of *B. typhosus*. Outbreaks of enteric have been frequently traced to a dairy. The careless and dirty habits of natives about barracks are dangerous, and the native cooks require constant supervision in order to get the food prepared in a moderately cleanly manner. Much enteric is contracted in the bazaars and brothels, due to the men eating sweetmeats and drinking aerated waters made from contaminated water. Flies are a great nuisance in the hot weather, and it is quite probable that they convey infection by walking on specific stools and then alighting on food, &c. Incineration of the stools, urine, &c., ought to be practised, as people do not realise that these contain the *B. typhosus* long after convalescence, and so are a source of danger.

The type of enteric met with in India is generally more severe than that met with at home. The death-rate also is greater, being about one-third, or 33 per cent., as compared with a mortality of from 5 to 20 per cent. at home.

In most instances, when men are admitted into hospital they have been ill for a few days previously, so one rarely has the opportunity of studying the disease from the beginning. In some cases I have noticed the temperature was high from the beginning, and did not rise in the usual ladder-like way. The fever is often atypical, resembling remittent or even intermittent fever. Hyperpyrexia is not uncommon, being the cause of death in one of my cases. Malaria often precedes or complicates enteric fever.

As a rule, rose-spots are not to be seen. I have seen only one case with typical enteric spots. Tache cerebrale is always present. In most of the cases on which these remarks are

based it was noticed that the bowels inclined to constipation. Diarrhœa is not usually met with.

The spleen is, as a rule, enlarged and tender. ' This enlargement may in many cases be due to malaria, but one frequently comes across cases of enlarged spleen in people who have just come out to India, and in whom there is no question of malarial infection. Relapses occur fairly commonly, but the attack is then, as a rule, milder than the former one. Trifling rises of fever also occur from indiscretions in diet, excitement, and so on. Delirium is frequent, and accompanies a high temperature. Bronchitis is an early and dangerous complication. Pneumonia and pleurisy are uncommon. Epistaxis is frequent, but not serious. Cardiac complications are uncommon. Thrombosis is pretty frequently met with, almost entirely in the lower limbs. Hæmorrhage is, I believe, rarely met with, as is also perforation. One may get a true combined malarial and enteric infection. Dysentery and hepatic abscess may also complicate enteric fever.

The treatment of enteric fever is carried out in the same manner as in England.

Malta Fever.—Cases of this disease occur very rarely in the British army in India, and the diagnosis has been confirmed by the serum reaction. All the soldiers affected have been only a short time in the country.

It has yet to be found out if the disease occurs amongst the natives.

Small-pox.—This disease is now comparatively uncommon since vaccination has been universally practised throughout India. Many natives object to vaccination on account of prejudice and the fever and malaise following the operation. In some of the wilder districts the natives still practise inoculation, or even wilfully expose their children to contagion. As a result there are often widespread epidemics of the disease.

Small-pox is most prevalent from February to April. All varieties of the disease occur, but in general the type is severe. The varioloid type occurs fairly often, and therefore the natives in some places are inclined to doubt the efficacy of vaccination.

The method of treatment, as practised by the hakims, or native doctors, is rather peculiar. The child must not be

given oil or any bitter things, otherwise deep ulcers will form when the scab falls off. When the disease has reached the pustular stage the native applies a mixture of ashes and water to minimise the scarring, but it is of very little effect, judging from the faces one sees in the bazaar.

Among the natives the chief complications are affections of the chest and brain, in the latter case sometimes going on to insanity. In addition, one constantly sees people with stone eyes, staphyloma, glaucoma, and opacities in the vitreous, which, on inquiry, are found to be due to mata or small-pox.

Scarlet Fever is very uncommon in India. Almost all the cases met with occur in people who have recently come out from Europe, and have caught the infection on board ship. It is most frequently met with in the hill stations, shows very little tendency to spread, and quickly dies out.

Cerebro-spinal Meningitis.—Epidemics of this disease occasionally occur in gaols, and are probably fostered by the underfeeding, overcrowding, and defective sanitary arrangements met with there. It is well known in the emigrant ships carrying coolies between Calcutta and the West Indies. The people most frequently attacked are young men who are starved and overcrowded.

The disease is probably spread by the nasal secretion, in which, even when dried, the specific coccus is found in a virulent condition. It has been noticed that during an epidemic there is a great increase in the number of pneumonia cases. It is quite possible that pneumonia may be clinically confounded with this disease, as meningitis often complicates the former affection. Lumbar puncture and bacteriological examination would, however, clear up all doubt.

The type most commonly met with is the ordinary form, commencing with headache, vomiting, and high temperature. Then follows the painful stiffness in the muscles, starting at the back of the neck, &c. Cutaneous complications occur frequently; herpes is common; petechiæ and erythema occasionally occur. Chronic headache is the most frequent after-result.

In gaols these cases are all isolated and treated as contagious.

Influenza first made its appearance in India in 1890. Since then it has been noticed to wax and wane in alternate years.

It bursts out at the change of seasons, being, as a rule, most prevalent during April and least so about October. The disease occurs most frequently in the hills—at the present moment there is an epidemic in Simla. This is probably due to exposure to chills, and also to the fact that most of the people who are sent to the hills are in a debilitated state, and so are more liable to the disease. In many cases epidemics of pneumonia and influenza occur concurrently. Prisons are often severely attacked.

The type of the disease is, as a rule, a mild one. In some epidemics the bronchial symptoms are most marked, in others nervous, and in others febrile symptoms are most manifest. Gastric and intestinal symptoms are rarely observed.

The bacillus of Pfeiffer has been discovered in the sputum and in the mucous discharges from the nose and pharynx.

Influenza is very liable to be confounded with simple continued fever, ague, and bronchitis.

Pneumonia is one of the chief causes of death in the native army and among the natives in general. It occurs most frequently in January and February, when the nights are very cold. The native has many habits which make him very liable to chest troubles. His house is generally small and stuffy, and inhabited by the husband, wife, and a large family. All holes are carefully blocked up to prevent air getting in, so there is no ventilation. Also, when asleep, the native always wraps his head up in the bed-clothes. Another dangerous habit he has, and no persuasion will turn him from it, is that of going to answer the calls of nature very early in the morning. He steps out from his warm, stuffy room into the cold night air, wearing a dhoti or loin cloth, and perhaps a blanket. Small wonder, then, that pneumonia carries off the native as it does. The dustiness of the air in many places causes this disease.

The type of pneumonia is generally severe, cerebral and maniacal symptoms being common. The tendency to heart failure is well marked. The temperature chart is, as a rule, typical. One, however, occasionally meets a chart showing a gradual defervescence by lysis, more especially in children. One of my charts shows a pseudo-crisis. Complications are not usual.

Relapsing Fever affects chiefly the poorer classes of people, such as weavers, mill hands, and such like, who live in overcrowded, deficiently ventilated houses. It often appears in an epidemic form in the gaols. In 1899 this disease was prevalent among the civil population of Bombay. In addition to the usual symptoms of fever, &c., there was a new feature present—a chain of small glandular swellings in the groin. This was not noticed by Vandyke Carter in the Bombay epidemic of 1876–1877. Plague was suspected, but a blood examination confirmed the diagnosis of relapsing fever.

In some epidemics jaundice is a marked symptom; in others, hæmorrhages, such as epistaxis, melæna, &c. As a rule one does not see more than three relapses in a case. Complications are not commonly met with. Pneumonia sometimes occurs, and is serious.

As regards treatment, medicine is useless. Ordinary hygienic measures and careful nursing are about all one can do.

In addition to the types of fever mentioned above, one often encounters cases of fever which cannot be so classified, and give great difficulty in diagnosis. One of the commonest is *simple continued fever*. This fever is due to change of season, want of acclimatisation, chill or exposure to the sun. It starts with a high temperature, 102° or more, with the usual accompaniments, and lasts for ten days or more. Hygienic measures and tonic treatment are indicated. People who are run down by continued residence in India frequently get a *low form of fever*, never rising above 100° – 101° . This fever goes on persistently for months, and the patient becomes greatly wasted and debilitated. Medicines are of little use. Quinine never gives any relief. The only cure is to send the patient away for a change of climate. A long sea voyage is the best medicine he can have.