

RELAPSING FEVER.

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THIS disease has been variously named "Febris recurrens," "famine fever," "tick fever" and "seven day fever."

It is a common fever in India where the conditions for its development seem always to be present.

It is an acute infectious disease characterised by fever of a sudden onset lasting from 3 to 10 days, usually 7, and after a variable period, of subsequent relapse or relapses.

The conditions under which it occurs are overcrowding, insufficient nourishment, and dirty personal habits. Age, sex, and season, seem to have no influence on its progress.

It is caused by a spirochaete (the spirillum of Obermeier) an organism from 3 to 6 times the length of a red blood corpuscle. It is seen as a narrow spiral filament which can be observed moving about among the corpuscles in blood taken during a paroxysm. It occurs in great numbers at the onset of the fever, but rapidly disappears after 3 or 4 days. It is then hard to find in the peripheral blood. It reappears in the relapse.

Mode of transmission. As might be expected from the necessary conditions of development, it is conveyed by bugs and lice and in Africa by a certain tick. In a recent investigation in the Punjab, lice that were caught were full of the spirochaete. The organism has power to pass into the ova of its host, and thus when the ova become mature in the insect, the insect is a source of infection.

The various human excretions have not yet been found to contain the organism.

Immunity.—At the end of an attack the blood is found to contain a highly toxic antibody to the spirochaete and a serum has been introduced by which in 47 per cent. of the cases in which it was used a relapse was prevented.

Incubation period.—This is not definitely known. It is usually considered to be from one to three days.

Symptoms.—The onset is sudden, marked by the usual symptoms of high fever-chilliness, rigor, vomiting or intense headache. The temperature rises to 104° or 105°. The pulse varies. Sometimes for the first two days it may only increase in rate to 100 or 110. After that it becomes rapid and may reach 130 and beyond that.

Jaundice is sometimes noticed and there may be a rash on the limbs or trunk, of small rose coloured spots. The question of typhoid may at first arise, but the course of the disease with temperature chart and absence of characteristic stools make the differential diagnosis comparatively easy.

The tongue is usually furred and moist, except in bad cases, when it is brown and dry.

Nausea is often a distressing symptom. There may be diarrhoea or constipation, but the latter is usual.

The spleen is usually enlarged and tender. Pains in the back and limbs are sometimes very troublesome and acute.

One fairly constant characteristic of the fever is that on the third day the evening temperature rarely rises above that of the morning.

Just before the crisis the temperature may run up to 106° or 107° with delirium. About the seventh day it falls with profuse sweating.

It may be noted that in relapsing fever the appearance of the patient is often disquieting and may give rise to grave fears. As a general rule however, patients recover, the mortality being given as 4%.

In some epidemics, as in North India at present, the mortality has been stated to be nearly 30 per cent.

After the fall of the temperature the patient rapidly recovers and is anxious to leave hospital. About 7 days afterwards however, a relapse occurs, which, although it is usually short, may be more severe than the initial attack. In India it is not usual for patients to have more than one relapse, although there may be more. In the African variety a third relapse is almost invariable.

Treatment.—Beyond the serum mentioned there is no specific for this disease. Arsenic, Salvarsan and Mercury have all been tried, and although it is claimed for '606' that it prevents a relapse, it is by no means proved.

The chief treatment is nursing. The heart must be carefully watched and stimulants given when necessary. Sponging and cold packs for the fever may be necessary. For the nausea ice may be given to suck.

Champagne and Hock are sometimes very efficient for nausea and may be used in private cases. Aspirin may alleviate the pains in the limbs and back.

It may be necessary to feed the patient by nutrient enemata. The constipation or diarrhoea are also best treated per rectum, as the stomach may be very sensitive to drugs.

It is necessary to be on guard against collapse when the crisis occurs, as in feeble or old patients there is some danger of this occurring. The above is a description of the normal course of the disease, but it is subject to many variations. The only certain means of diagnosis is by the microscope.