

EXANTHEMATIC TYPHUS

According to an article by Lt.-Col. Charles Sillevaerts, member of the Medical Committee of the Belgian Red Cross, exanthematic typhus has afflicted mankind for countless ages and is still much dreaded although our knowledge of the processes by which the disease is conveyed to man is now such that we may ultimately hope to stamp it out completely.

As early as 1546, Frascator gave a remarkably accurate description of what he called "morbus maculatus." But even before his time doctors and even historians have given instructive accounts of epidemics whose distinctive features enable us now to identify them with typhus and distinguish them from true plague and various other epidemic diseases.

Typhus is a disease of warfare, invasions, famines, severe winters, migrations of nations, and any events promoting misery, under-feeding, dirt, and a promiscuous mode of living which defies the most elementary hygiene. These are still the factors which play the most important part in the dissemination of the disease.

The modern history of typhus begins with the Russian scientist, Dr. Moczuckowsky, who, in 1900, successfully inoculated himself with the blood of a patient suffering from this disease. The germ responsible for it has been given the name of "Rickettsia prowazeki." In 1909, Charles Nicolle showed that the body louse conveys this organism to man. Considering how ubiquitous the body louse is, the universality of typhus is easily comprehensible.

It has been known from ancient times that once a patient has recovered from typhus, he will not contract it again, an immunity of long duration having been conferred on him by the first attack. Working with monkeys and guinea-pigs, Nicolle succeeded in reproducing typhus in them and in studying its behaviour under experimental and laboratory conditions. His experimental observations have confirmed the old conclusion that a first attack of typhus, however mild, confers immunity to a later attack, the duration of this immunity being to a certain extent proportional to the gravity of the first attack.

Of the three main families of lice parasitic to man—the head louse, the pubic louse, and the body louse—it is only the last-named which is responsible for conveying typhus to human beings. While the head louse and the pubic louse lay their eggs on the human body, showing a distinct preference for the hairy parts, the body louse lays its eggs in folds of the garments worn by her victim whom she visits only twice a day in order to take a meal off him. Having done so, she retires to digest her meal in the folds of his garments. If her host wears the same garments night and day next his skin, the even temperature will enable her eggs to hatch out in eight days. But if the surrounding temperature is low, the hatching will be delayed or frustrated altogether. By the simple device of changing all his clothing when he goes to bed, and leaving his day garments exposed to severe cold, the host will successfully break the life cycle of this parasite.

As the body louse lives day and night in the linings of its host's clothing, and does not wander further afield to walls and furniture, it is seldom necessary to waste much time or money on the disinfection of rooms and furniture. It is clothing, and clothing alone, which must be dealt with if the louse is to be destroyed. By the simple device already mentioned of leaving the clothing worn by day out in the cold, most of the vermin is destroyed. The baking of clothing in a suitable apparatus disposes of the survivors.

More and more successful attempts have been made to prepare vaccines which will confer immunity to typhus. Some of these vaccines have been prepared by crushing

infected lice and mixing their mangled bodies in a carbolic solution of salt. Perfecting the system of Da Rocha Lima, Weigl has introduced this system of vaccination in human beings. The statistical evidence on behalf of Weigl's system of vaccination is most encouraging.

The infected louse transmits the disease to human beings when it bites them. But a bite is not always necessary for infection to take place. It may be enough for the infected louse to deposit its excreta on the skin of its victim who, when he scratches himself, introduces the germ of typhus into the minute abrasions. Merely to crush an infected louse as it is about to feed on the human body may force some of the germs it harbours into minute crevices in the skin.

Apart from vaccination there are the general rules of hygiene which, if conscientiously observed will keep typhus away. Personal cleanliness and general hygiene are the worst enemies of the louse whether it be infected or not.

(Communicated by the Secretariat of the League of Red Cross Societies.)

NURSING IN IRAN.

By LORRAINE SETZLER.

Throughout the ages whenever and wherever emancipation of women has been brought about, nursing has benefited. It was at its highest peak when women were free, and dropped to its lowest depths when women were restricted. As nursing is distinctly a woman's work, the one profession in which women are admitted by all to excel men, then nursing cannot develop to its fullest extent in a country where the women are restricted. So that nursing as a profession was not possible in Iran until emancipation of women took place.

This marvellous change in the status of the women of Iran was brought about by His Imperial Majesty, Reza Shah Phalevi, in January, 1936, when abolition of the veil was ordered and the women were encouraged to equip themselves for some career or profession outside the home. This opened up an avenue for nursing and offered a good opportunity to bring modern nursing to Iran. Nursing in Iran, previous to this time, was done by the servant type of women, who were mostly illiterate. For the young educated women of the better families, it was not considered in keeping with their station in life to work; they were brought up to marry and to rear families.

However, the emancipation of women brought many changes and many opportunities for the Iranian women, and the Minister of Education seized upon this golden opportunity to start schools of nursing in Iran. In September, 1936, only nine months after the abolition of the veil, three schools of nursing under the Department of Education were opened in three cities in the north, namely, Teheran, Tabriz, and Meshed. The Iranian Government decided to employ American nurses to organise the schools, the Minister of Education being familiar with the plan of the American Nursing School system.

During the spring and summer of 1936, the Minister of Education and the American nurses held many conferences, carefully drawing up a curriculum for these Government schools. A three-year course of study was thoroughly discussed, but because the idea of nursing, previously considered servants' work, was so new to the women of Iran, and because the midwifery course of three years was thought to be superior to nursing, it was feared that young women would not enrol in the nursing schools if the course were made three years, so a two-year program was arranged.

In 1937, the Department of Education asked the Presbyterian Missionary Society to secure American nurses for them to direct some of these nursing schools.

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