OUR PRIZE COMPETITION.

DESCRIBE THE SYMPTOMS OF ENTERIC FEVER, THE COMPLICATIONS WHICH MAY OCCUR, AND THE NURSING CARE.

We have pleasure in awarding the prize this month to Miss Florence Ibbetson, Essex County Hospital, Colchester.

PRIZE PAPER.

Enteric fever is an acute specific infection due to infection of the body by the Bacillus Typhosus—*Eberth's Bacillus*. The germ enters the human body by ingestion of infected food or water and passes down the alimentary tract as far as the ileum. There it infiltrates and attacks the groups of lymphatic glands, called Peyer's Patches, setting up an acute inflammation and ulceration of these structures, which may be followed by extensive necrosis of the bowel wall. There is profound toxæmia.

The incubation period is long and uncertain, ranging from eight days to twenty-one, with an average of ten to fourteen. The onset is insidious in most cases, the usual symptoms being an ill defined malaise, the patient feels off colour but continues his duties, headache is persistent, and epistaxis is common; the appetite is lost, vague pains occur which become more definitely localised in the back and abdomen. The lassitude and weakness increase until the patient has to take to his bed.

The temperature is of the stair-case type, rising each evening smartly and falling a little each morning, until the maximum is reached about the end of the first week. The pulse is increased and full, and the tongue furred.

The abdomen is tender and there may be constipation at first, followed by diarrhœa.

In the second week the rash appears. It consists of small rose-red spots which occur in crops on the abdomen and back, and disappear and recur spasmodically. During this week, too, the Widal agglutination test will be positive, which establishes diagnosis in doubtful cases.

The temperature ranges between 102 deg. to 104 deg. F., and tends to become remittent towards the end of the week; the pulse is weak and probably rapid. The patient is extremely ill and lies huddled in bed, paying little attention to his surroundings; there may be a muttering delirium. The face is greyish and expressionless, the eyes sunken and dull. The mouth is dry and furred, and the tongue is shrivelled. The lips are cracked and herpes may appear.

Diarrhœa is an established symptom, the stools are frequent, greenish-brown in colour and of a consistency of pea-soup, and will contain the Bacillus Typhosus. Urine is scanty. Symptoms increase in intensity until the climax is reached during the third week of the illness.

This is the most dangerous week, as serious complications, such as hæmorrhage and perforation of the bowel are most likely to occur if the necrosis of the bowel wall is at all extensive.

The abdomen is tender, distended and rigid; there is marked tympanitis, which may go on to meteorism. The stools become darker in colour and contain mucous membrane, blood, and small sloughs.

The patient sinks into a condition of coma-vigil, which is commonly called the "typhoid state." He is semi-conscious and plucks at the bedclothes and mutters to himself. Occasionally, he may be very restless, with noisy delirium. The face is ashen, the eyes dull, the mouth is drier and more furred, and the cracked lips tremble. Bedsores form easily, as the emaciation is extreme. There may be retention or incontinence of urine and incontinence of fæces.

The temperature becomes intermittent, the pulse is over 120 and very weak. Respiration is costal, rapid and shallow. The bases of the lungs are not expanded and may become congested. The patient may die from complications, or from toxæmia and heart failure.

During the fourth week some improvement should occur, but this disease is subject to relapses which greatly retard progress. Evidences of improvement are a diminution of the diarrhœa and the abdomen becomes softer and less distended. The pulse is stronger and the temperature begins to resolve by lysis, resolution taking about ten days. The mouth is less furred and becomes moister. The patient begins to take a definite interest in his surroundings and may develop an absolute craving for food. Convalescence follows slowly, and there is still the danger of relapse.

The patient is not considered free from the infection until the stools contain no bacilli on microscopic examination.

Complications are many and must be watched for in nursing a patient suffering from this disease.

Heart failure, which is most likely to occur during the third and fourth weeks, is a dangerous complication.

Hæmorrhage and *perforation* may also occur during the third week, due to the extensive ulceration and sloughing of the bowel. Peritonitis will follow perforation if the patient does not die from the initial shock. A severe degree of tympanitis favours perforation.

Chest complications may arise, due to congestion of the lungs brought about by the inability of the patient to expand them fully; pleurisy, bronchitis and hypostatic pneumonia may occur.

Thrombosis is not uncommon and tends to attack the femoral vein. Embolism may occur in the heart or lungs.

The urine may be infected by the bacilli, and pyelitis occurs occasionally. Septic parotitis is a particular danger, as the saliva is not being secreted in the acute stages of the disease.

Bed sores are liable to occur if the pressure points are neglected at all. Otitis media sometimes complicates this disease.

The patient may *become a carrier* and so a source of danger. The germs may be carried in the intestines or in the gall bladder. In this latter situation, they form a nucleus for the depositing of bile salts, leading to a condition of gall stones.

The enteric group of germs comprises not only the Bacillus Typhosus but also Bacilli Paratyphosus A and B. Infection by these germs is of a similar nature to typhoid fever proper, but, as a rule, of a less serious character, and complications are not so common. Treatment is the same in all cases.

Typhoid fever is a disease which must run its course. No dramatic treatment will benefit the patient and the