

has an intensely congested appearance, and is covered with blood-stained mucus."

For nearly a week this case presented no *obvious* symptoms other than those we are accustomed to associate with an abscess in a submaxillary gland. During that time necrosis of the gland must have been going on, and the necrotic process must have been insidiously extending below the deep cervical fascia to the mediastinum. When, however, the pleuræ and the pericardium became involved, there was a sudden outburst of severe symptoms, with a rapid course towards death. To account for such a series of events, the cause must have been extremely virulent. The *post-mortem* examination did not reveal the origin of the glandular inflammation, and, through a misunderstanding, no proper bacteriological examination was made, the bacilli of tubercle alone being sought for, and without success.

THE CONDITION OF THE BOWEL IN TYPHOID AFTER ANTISEPTIC TREATMENT.

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WITH reference to my published papers on the antiseptic treatment of typhoid by the administration of salol in combination with chlorodyne and lac bismuth, I claimed therein:—

1. That this antiseptic treatment completely and permanently arrests the course of the typhoid disease.

2. It subdues the typhoid poison without producing injurious consequences.

3. It prevents intestinal ulcerations.

4. I expressed my belief that antiseptics renders the typhoid stools incapable of propagating the typhoid infection.

The last point can be established only by bacteriological experiments, but, in respect of the first three, I have already published a considerable amount of evidence.

The first and second points I regard as conclusively proved, but in respect of the third—viz., the prevention of intestinal ulcerations—the evidence so far attainable has been of an inferential character.

In my last paper on the subject, dealing with 84 cases of typhoid, I stated as follows:—"In every one of the 29 patients included in this class (that is, coming under treatment before the tenth day, and having no complication) the temperature fell to normal, or below normal, on the fifteenth day, as nearly as may be ascertained. Thereafter it remained sub-normal for seven to twelve days, and then attained the normal line, and so continued until the patient was discharged cured. Under the influence of antiseptics, and coincident with the subsidence of the temperature, the tongue, from being dry, hard, and dirty, became clean and moist, the sordes on teeth and lips scaled off, the delirium, dilatation of pupils, trembling of the hands and tongue, and other nervous symptoms ceased, and the patient became perfectly conscious; the pulse fell to normal, or below normal, the tenderness over the ilio-cæcal region disappeared, and even deep pressure and grip of the intestines evinced no sign of tenderness, thereby showing that the acute congestion of the intestinal glands had ceased. There was no typhoid diarrhoea, and the abdomen became flat, soft under the hands, without any tenderness. The bowels moved every second day, after an enema, and the stools were formed and consistent. Is it possible that intestinal ulcerations can exist in typhoid without exhibiting any sign whatever of their presence? According to my experience, that is not possible."

But there is a wide distinction between inferences derived from observation of patients, and knowledge obtained from *post-mortem* examination. Hitherto the latter has not been obtainable in cases coming under treatment before the tenth day of illness, mainly because the mortality has been in cases coming under treatment after the tenth day, when the intestinal glands have already begun to slough, or are on the verge of sloughing. Now, however, I am able to report a case of typhoid, which came under the antiseptic treatment on the eighth day of illness, and died on the thirty-seventh day from gangrene.

The limits of space forbid the publication of my daily notes; but, briefly stated, the main points were as follows:—The patient was obviously not robust, abdomen greatly distended and hard, with well marked and persistent tenderness over the epigastrium; ilio-cæcal tenderness distinct, with high temperature and dry tongue. There was no typhoid diarrhoea, and the bowels moved every second day after an enema. Owing to the condition of the skin, the typhoid spots were not so distinct as usual, but they were there. In this patient, as

in others where the typhoid was complicated by abdominal inflammation, the antiseptic agents did not produce the free perspiration always caused in uncomplicated typhoid.

The great distension and tenderness of the abdomen continued, and about the twentieth day of illness gangrene of the left cheek began. He died from the exhaustion of gangrene on the thirty-seventh day.

Post-mortem abdominal section was allowed. There was no purulent peritonitis, but the coils of intestine were matted together in several places. The small intestine was almost entirely collapsed. The pancreas greatly enlarged, and intimately adherent to the surrounding viscera. The mesentery was intensely congested, and studded with swollen glands about the size of a raisin. The ilio-cæcal valve was swollen, but not ulcerated. Within four inches of the valve there was a glandular swelling two inches long, and at the end of this there was a small circular ulcer rather less than a split pea. Twelve inches from the valve there was a very slight superficial erosion on the end of a glandular swelling. There were no other ulcerations, and beyond two feet from the valve there were no glandular swellings.

Remarks.—This was a case of typhoid occurring in a weakly subject. When he came under the antiseptic treatment, on the eighth day of illness, the typhoid was complicated with severe abdominal inflammation, and therefore the course of the illness was not arrested on the fifteenth day, as it usually is in uncomplicated typhoid. The inflammation of the pancreas and mesentery was more severe than any I have hitherto observed in typhoid, and this may be connected with the gangrene which followed. But the most interesting facts were found in the state of the intestinal glands, and the evidence they afford of the influence of the antiseptic agents in preventing intestinal ulceration. So far as I know, this is the first case of the kind recorded, and a comparison between the state of the intestinal glands in this case, and that usually observed in all typhoid under every other method of treatment, goes a long way to confirm the inferences I deduced from clinical observations.