

the beginning of the attack until convalescence is fully established. Especially is this of importance if the case is a severe one, and attended by symptoms that indicate extensive intestinal lesions.

When hemorrhage from the intestines does occur during the third or fourth week of the fever, at once semi-narcotize your patient by the administration of opium in small doses at short intervals. Absoluterest of the body must be insisted on, the patient must not be turned on the side or moved in bed, and an ice-bag should be applied over the abdomen. I doubt if any good results can be accomplished by the use of astringents, either by enemata or by the mouth, as it is not known that they even reach the seat of the hemorrhage, although gallic acid and the persulphate of iron are usually recommended in cases of intestinal hemorrhage occurring in typhoid fever. If the hemorrhage is profuse, it may be necessary to keep your patient under the influence of the opium for a week or ten days.

Peritonitis.—When perforation of the intestine occurs the case may be regarded as hopeless: death takes place usually within twenty-four hours; death occurs as the result of general peritonitis; no plan of treatment avails anything. If the peritonitis occurs without perforation, from the extension of the inflammatory process from the intestinal ulcers to the peritoneum, by bringing your patient rapidly into a state of semi-narcotism and holding him there for five or six days, you may prevent the extension of the peritonitis and save the life of your patient. Such a case you are to treat in every respect as one of localized peritonitis.

After recovery from an intestinal hemorrhage or a localized peritonitis in typhoid fever, be exceedingly careful about the administration of cathartics or enemata; either may jeopardize the life of your patient. The bowels will move spontaneously after a time, even though the use of opium be continued, and no harm will follow should two or three weeks pass without a movement from them.

When the stomach is irritable, the hypodermic injection of morphine is preferable to opium administered by the mouth. This is given to paralyze the peristaltic movement of the intestines.

Bronchitis.—I have already stated that catarrh of the larger bronchial tubes is present in all severe cases of typhoid fever. No special treatment is required for its management; but, if the bronchitis becomes capillary, great relief will be obtained from the application of dry cups to the chest and the internal administration of carbonate of ammonia. Vapor inhalations will also be found of service in severe cases.

Pneumonia.—The pneumonia which complicates typhoid fever in nearly every case is lobular in character. The signs which indicate

its occurrence are sudden rise of temperature, increased frequency of respiration, and the physical signs of localized pulmonary consolidation; cough and expectoration are rarely present.

Its occurrence is always an indication that stimulants should be administered. If they are being administered, they should be increased in quantity. To prevent or relieve the hypostatic congestion of other portions of the lung, which frequently accompanies pneumonic development, the heart-power must be increased, and the position of the patient changed.

Laryngitis.—For the relief of the laryngitis which occasionally complicates typhoid fever, a small blister may be applied on either side below the angle of the jaw, and the whole neck enveloped in a poultice. If these measures fail, and suffocation appears imminent, tracheotomy should be resorted to without delay.

Subacute gastric catarrh, occurring as a complication during convalescence from the fever, can only be managed successfully by giving the stomach rest as far as possible, restricting the diet to a single tablespoonful of milk at a time, and applying hot fomentations over the epigastrium.

Bed-sores.—The severer forms of bed-sores are the most intractable complications we have to combat. Fortunately, the severer forms are much less frequently met with under the more recent plan of treatment; and, if they do occur, they are superficial and limited to small spots. Scrupulous cleanliness is one of the principal means for preventing their development. So long as there are no erosions, the parts should be frequently bathed in spirits of camphor, and the points of attack should be relieved from all pressure. If the sores penetrate the integument, they should be frequently washed with a weak solution of carbolic acid, and afterwards covered with lint covered with vasaline.

The most unfavorable cases are those in which the point of pressure caused by the weight of the body becomes gangrenous. In such cases, by some a continuous warm bath is recommended. As soon as sloughing takes place, and the parts separate, they should be dressed with lint saturated with balsam of Peru and carbolic acid.

As has been already stated, diarrhea is usually present in the early period of this fever, but sometimes there is constipation. The question arises, is the administration of cathartics ever admissible in typhoid fever? If so, what cathartic shall be employed? There is great diversity of opinion upon these points. One recommends the administration of rhubarb, another advises alkaline cathartics, and another would give calomel.

I shall consider these at my next lecture, in connection with the management of convalescence and the sequelæ of this fever.