

that the endotoxins are excreted in the urine, the giving of large quantities of water by the mouth or rectum is invariably indicated in the early stages of the disease. In the later stages it may also be indicated, but there are a number of contraindications, such as hemorrhage, early symptoms of perforation, and cardiac weakness. The last mentioned has not received the attention it deserves, as it is my belief that, frequently, large quantities of water are given in a routine manner throughout the course of the disease, which procedure in cardiac weakness might produce pulmonary stasis. This I have observed in practice. It should also be remembered that in many fevers there is frequently a tendency to retention of water, which should be taken into account in determining upon the quantity of water to give a typhoid patient, especially one suffering from cardiac weakness.

Again, if we believe that endotoxins are excreted into the intestines, the exhibition of laxatives or possibly mild cathartics is sound in principle, especially in the early stage of the disease. Clinical experience, I think, supports this view. It is unnecessary for me to mention that the profession are not a unit with regard to the use of purgatives in the treatment of typhoid. Some advocate strong cathartics producing eight or ten evacuations in twenty-four hours. This, I think, is wrong because it disturbs digestion, may depress the patient and possibly precipitate hemorrhage or perforation. On the other hand, there are others who never use a laxative after the ninth or tenth day of the disease for fear of producing hemorrhage or perforation, but make use of a simple enema once a day to empty the lower bowel. They believe that a laxative per rectum is less dangerous than one per os, although both increase peristalsis of the whole intestine.

For my part, in mild cases, I am accustomed to order an enema every morning after the ninth day of the disease, although I believe there is practically no danger in administering a laxative to a patient who shows no manifestations of hemorrhage or intestinal perforation. In highly toxic cases I feel that a laxative or simple purgative is preferable because it is more likely to diminish the endotoxemia. In my practice I frequently make use of castor oil followed in two hours by an enema. Half an ounce of the oil is given every morning. This is followed in two hours by an enema of 2 drachms of turpentine, 4 ounces of olive oil and 2 ounces of soap solution, administered with a barrel syringe. Half an hour later a simple enema is given, which, as a rule, produces a free evacuation with very little disturbance to the patient. The advantage of this combined method is that a better cleansing of the whole intes-