

opium in peritonitis would soon give them the needed confidence to do right by their patients. I feel very strongly upon this point, because it has happened to me to see several cases that made a lasting and very unfavorable impression. In one of these, a case of puerperal peritonitis is seen in consultation not long ago, the patient had been receiving for six days—mark it well—an average of one-fourth of a grain of morphine daily. She had not slept one hour in all that time, and, it is almost needless to say, she died. In another case of acute peritonitis in a boy of fourteen years, I was assured by the attending physician that he gave a hypodermic injection of an eighth of a grain of morphine as often as he thought necessary—as though it were not necessary every half-hour!

The average medical graduate leaves college with the carefully-acquired information that the dose of opium is from one fourth to one-half a grain, every three or four hours, but that there are marked idiosyncrasies, and that its administration must be anxiously watched. He will, accordingly, treat his case of peritonitis on this plan, constantly feeling uneasy lest in his absence the patient develop narcotism. Finding that no symptoms of poisoning develop he will rest satisfied that he has done the full measure of his duty, and will repeat the small dose every three or four hours in his next case.

It is no imaginary picture that I am drawing; it is what I myself have seen; and it is time that the profession learned to regard this timorous, faint-hearted misuse of opium, deceiving alike to the practitioner and the patient, as malpractice; as criminal as the neglect to recognize a fracture, and place it in a suitable dressing. It has been said that there is no dose of opium for pain. This may be extended, and it may be as truthfully said that the smallest suitable dose of opium in peritonitis is that which will promptly carry the patient to the limits of narcotism, and that the frequency for its repetition is to be determined solely by the degree of narcotism. It is not conscientious regard for the patient's life that prevents the physician from following this plan. It is his own lack of courage which sacrifices the patient.

I am fully aware of arguments that have been advanced in answer to Dr. Clark's report of the case, who, at the height of the attack, received for six days the equivalent of from 421 to 467 grains of opium every twenty-four hours. It is said that of all this large amount but the smallest fraction was absorbed; that to get the proper dose it should be given hypodermically, etc. Supposing it was necessary to give 467 grains to obtain absorption for the amount required to cure the patient, then 467 grains was the proper dose in that case. Hypodermic medication, is unnecessary, as morphine can easily be given in concentrated solution by the mouth, and most of it will be absorbed before it enters the stomach,

to say nothing of the intestines. The basis of some of the opposition is, that in the inflamed condition of the peritoneum, the mesentery and its contained vessels, and the intestines and their lacteals, are unable to perform their physiological duty. The full measure of their physiological duty, we will admit, but certainly not a large fraction of it, else how could nutrition be maintained!

A word more as to the opium treatment. To secure its best effect it must be given early. It has for some time been my rule in every case commencing with fever, prostration, and an acute, localized, continuous pain, to begin the treatment at once with opium or morphine, without regard to the possibility of existing constipation. Should the painful symptoms subside in the course of a day or two the bowels may be opened by a mild saline cathartic, or, by what seems preferable me, repeated minute doses of calomel; but opium first, and all the time, until convinced that peritonitis, in its diffuse form, has not developed. Little attention need be paid to the bowels at the start. Clark says that he has allowed patients to go for fourteen days without a stool.

The use of opium does not always prevent the regular evacuations, and I have seen a patient who had one movement daily during the entire course of his disease, though for two weeks he was receiving half a grain of morphine every hour, and, doubtless, many similar instances could be narrated. These cases should be regarded as exceptional, since the effect of the opium, as usually observed, is to retard greatly, if it does not wholly arrest, intestinal movements. By diminishing the frequency of respiration, the opium tends to eliminate another source of pain, as well as to prevent that rapid spread of the disease which the constant attrition of diseased against healthy portions of the peritoneum will almost surely entail. Upon the circulation, too, the action of the opium must be regarded as largely beneficial. The slowing of the heart-beats with the rise in arterial tension following its use, are ample testimony that, if properly controlled, it is a cardiac tonic. We obtain this result at once, but it is necessary to carry the patient beyond this point, and to induce a sedative action on the circulation.

How are we to judge of the proper degree of narcotism, seeing that it is easy to carry the patient beyond the desired point, especially while employing such large doses? Not by the relief of pain, for this result may be attained early; nor by the contracted pupil, which also shows itself after very moderate doses. The index of the proper degree of narcotism is furnished by the respiration, the pulse, the continual drowsiness of the patient, and the partial relaxation of the abdominal wall. The frequency of the respirations, increased by the embarrassment of the abdominal movements, should be