

and no infection of the peritoneum took place. No ill effects resulted from the application of the strong formalin solution, and gradual closure of the incision took place, the patient making a good recovery.

In reference to these last cases (with the exception of Case VI.) I wish it to be clearly understood that I employed the formalin solutions, not at all because of the value of their antiseptic action, but solely for the purpose of determining their influence when introduced into the human peritoneal cavity in such strengths as to carry out the conditions which I have already detailed as pertaining to the ideal intra-abdominal antiseptic.

I began tentatively at first, merely sponging the peritoneum of the pelvis and its viscera. In case V. I carried out the same procedure which has been described by me in connection with many of my experiments on dogs, viz., irrigation of the peritoneal cavity followed by closure of the abdomen, a considerable quantity of the solution being left inside.

In no instance did the application of the formalin appear in the slightest degree to cause any unusual symptoms. The accident which I have described in connection with Case VI., viz., the escape of the intestines into the abscess cavity in the progress of its irrigation with strong formalin solution (1 in 500), was of extreme interest in demonstrating that the human peritoneum may, sometimes at least, stand the irrigation of such a strong formalin solution as well as the peritoneum of the dog.

The application, so entirely accidental in this instance, I would not counsel in any other case, because as I have already pointed out, the inhibitory influence of weaker solutions (1 in 1000, 1 in 2000, 1 in 3000, etc.) on microbial activity is sufficiently strong; and the great desideratum in dealing with the peritoneal cavity is to obtain the greatest amount of benefit with the smallest amount of risk to the peritoneal endothelium.

In a certain number of my experiments on dogs, as well as in my operative procedures on the human subject, I employed normal saline solution instead of water in making up my formalin solutions. This I did in the expectation that they would be better borne by the peritoneum. In future work I intend to modify this procedure still farther, viz., first of all, irrigating the peritoneum thoroughly with saline solution, removing this by sponging, and afterward introducing the formalin solution.

The object of this variation is to prevent too rapid absorption of the formalin solution by the peritoneum, and thus to allow its activity to be longer manifested in relation to the infective material present.