

The argument in favor of salt solution is based upon the following proposition: Given a minimum amount of peritoneal infection, it is infinitely better to distribute it once before the micro-organisms undergo manifold sporulation than to hope for its elimination after it has gained virulent headway through stagnation or clinging to operation fields within the abdominal cavity. By at once distributing a minimum amount of the infectious material generally throughout the body the micro-organisms are promptly placed in the most favorable situations for their destruction and elimination.

Whether the alexin or the phagocytic theory concerning the destruction of micro-organisms be accepted is immaterial, for in either case it is better that the micro-organisms be quickly deposited where the antagonistic factors are dominant than to be left behind in the peritoneal cavity, into which the leucocytes and serum more slowly flow.

It was found from investigation that the normal lungs and also the kidneys may withstand and eliminate comparatively large quantities of infectious matter when carried quickly from the peritoneal cavity to these organs. It is the continued action of infectious matter, carried hour after hour from a generating focus in the peritoneal cavity which works destructively on these organs, and secondarily on the general system. Besides the aforementioned benefits derived from intraperitoneal salt solution, all of the other advantages given by the salt solution, introduced elsewhere, are found here also, as, for instance, in hemorrhage, shock and the urinary excretion. One objection may be offered to the saline infusion, but in no case was it found to be serious. Within the first twenty-four to thirty-six hours after the operation patients not infrequently complained of distress from the diaphragm similar to a pleuritic pain.

"The chief tenet in the argument is based upon the enormous and rapid absorbing function of the peritoneum, which absolutely precludes the possibility of limiting to any surgical field in the peritoneal cavity septic matter or micro-organisms. Accepting this hypothesis as proved, I link my next basal theory to it as follows: Given an infection at the time of operation, it is infinitely better to promote its rapid elimination from the peritoneal cavity than to retard it or attempt to definitely localize or remove it by surgical drainage."

CONCLUSIONS.

"1. The peritoneum has an enormous absorbing function, being capable of taking up 3 to 8 per cent. of the entire body weight in an hour.

"2. Minute solid particles are carried in an incredibly short time from the peritoneal cavity through the diaphragm into the mediastinal lymph vessels and glands, and thence into the blood circulation, by which they are quickly distributed to the abdominal organs and to the bone-marrow.

"3. The granular bodies are at first largely transported as free bodies, swept along by the lymph currents, but later the leucocytes act as carriers.