

Of the different methods of introducing this solution into the system, I intend to refer in detail to one only, viz., the intravenous transfusion of normal salt solution. Hypodermoclysis and enteroclysis are slower and milder means of obtaining the same end. Some recommend these in preference to the intravenous method, enumerating as dangers of the latter: injection of air into the veins, too rapid distension of the heart, phlebitis, thrombosis, etc. Of course these are dangers we must anticipate, but thorough asepsis ensured, carefulness combined with an ordinary amount of intelligence will exclude these accidents. In an experience of some forty cases by this method, I have never seen any of these accidents occur.

Others advise,—and I think rightly so, hypodermoclysis and enteroclysis in cases except where the vitality is so low, that absorption from the subcutaneous spaces and by the intestine is too slow to produce the desired effect.

As regards the length of time the three principal methods take in producing their effect as evidenced by increased secretion, I might say that it has been demonstrated by the addition of a minute amount of potassium ferrocyanide to the normal salt solution. This, with chloride of iron, gave the prussian-blue reaction in the urine in from one and a half to two minutes when the solution was transfused by the intravenous method, in four and one half minutes by hypodermoclysis, and in twenty minutes by the bowel. It must be remembered however, that these results were produced, while experimenting on healthy animals, and these results would therefore vary in disease, according to the vitality of the individual. There can be no doubt but that the intravenous method is the quickest, though it does need more care in its performance. In a state of collapse from shock, hypodermoclysis is the slowest. Some recommend a combination of hypodermoclysis and enteroclysis to overcome this slowness of action.

Another valuable means we have of introducing salt solution into the system, is by absorption from the peritoneal cavity. Here absorption goes on over an extensive surface, and the effect is fairly rapidly produced. In abdominal surgery