

which is always present in greater or less quantity in it.

In herniæ which have been for some time strangulated, or when strangulation has been acute, this fluid is usually found turbid opaque and dark in colour with a marked intestinal odor. It appears to be septic and at least is not the sort of thing that should be allowed to pass into the abdominal cavity. There must be osmosis going on between this fluid and the contents of the gut rendering it septic. There is but little danger from it in a small hernia, for in these the sac is usually freely opened and all the fluid escapes, but in large herniæ, where a quantity of this fluid remains in the most dependant parts of the capacious sac, it may become a source of great danger if not freely washed away before the stricture is divided and the peritoneal cavity exposed.

The simple means of preventing this source of infection would be by thoroughly flushing out the sac before the stricture is divided.

This suggestion is not new. In the early days of the antiseptic method when more faith was placed in the chemical disinfectant than in free douching with pure (sterilized) water, antiseptics in herniotomy was done by the application of a germicidal solution with strangulated gut and sac. It is now, however, a well understood fact that antiseptic solutions sufficiently strong to be effective are often dangerous and irritating to delicate tissue. This would be the case especially in the case of a strangulated gut already nearly devitalized and unable to stand any further irritation. The plan was abandoned, as it was found to injure the already nearly necrosed intestine.

There can be no such danger from the free use of hot sterilized water, and I think it should be the rule, especially where the sac is large, to follow the plan of free douching of the sac before the stricture is divided. This may be the practice of some operators now under the circumstances which I have de-

scribed, but it is certainly not made, as it should be, a surgical rule to guide all operators.

I was particularly impressed in regard to this point in an operation for strangulated hernia I performed a few weeks ago. A man aged about 70 was admitted on Friday, March 10, with a strangulated scrotal hernia. The tumor was very large, nearly as large as a child's head. This immense protrusion and strangulation had occurred about twenty-six hours before the operation was performed. After the usual incision the sac, which was very tense, was opened near its neck, and from it flowed a quantity of very dark ill-smelling fluid; the incision was enlarged a considerable distance downwards and the gut was found almost "gone," but it still retained its resistance and gloss, and it was deemed best to return it. (It was found afterwards that there were five feet of intestine strangulated.) The sides of the long incision were depressed and I believed that the fluid had been drained away, but after the stricture was divided, and while endeavoring to return the large mass of intestine I could feel and see that some of the fluid from the lower dependant part of sac was welling up about my fingers, with no protection for the peritoneal cavity. At once a sponge was crowded into the opening and the sac thoroughly douched, but, I fear, not before some of the fluid had found its way into the peritoneal cavity. The patient never rallied from the shock, and died about twelve hours after the operation, in a state of collapse.

If such another case came under my care, or even in every case of herniotomy, I can see no possible harm—and in many cases much good—from free douching of the sac with hot sterilized water before the constriction is divided. The small amount of fluid which may have passed into the abdominal cavity could not have influenced the fatal result in this case, as an acute strangulation at that age of four feet of intestines made the case nearly hopeless under any circumstances.