

RE-OPENING THE ABDOMEN FOR ACUTE SEPTIC  
PERITONITIS FOLLOWING CÆLIOTOMY,  
WITH REPORT OF A SUCCESSFUL CASE.

BY J. RIDDLE GOFFE, M.D.,  
*New York.*

---

OMITTING the few cases of abdominal section in which death occurs from hemorrhage and shock, the vast majority of fatal cases owe their fatality to sepsis, which exhibits itself in the form of septic peritonitis. The source of the sepsis in some cases suggests itself at once. In others it is very obscure. It has been quite the custom whenever albumin, associated with casts or without them, has been discovered in the urine after abdominal section to ascribe the fatal issue to an acute nephritis caused perchance by the anæsthetic, or an acute exacerbation supervening upon a chronic nephritis, and all of such obscure origin as to absolve the operator from all responsibility. But we are beginning to discover that the toxic symptoms of peritonitis in many instances resemble closely those of uræmic poisoning, and the suspicion is growing that the toxic infection is the cause of the nephritic complication. How far these obscure cases can be relieved by surgical interference at the seat of the original operation is a subject for future investigation.

But cases of undoubted septic peritonitis are constantly arising after operation, and these cases ought to be relieved by prompt re-opening. The source of infection may be lack of cleanliness in some little detail on the part of the operator, escape of septic material from diseased organs, or infection of

the ligature in transfixing diseased tissue. This last is a source of trouble not fully appreciated, and when not so serious as to light up a general peritonitis is the cause of frequent abdominal and fecal fistulæ.

That septic peritonitis following cœliotomy demands surgical relief has long been recognized, but the results have been so discouraging even in the hands of the best operators that even the bravest have hesitated in the presence of this condition to re-open the abdomen, or they have deferred it so long that their efforts could be of no avail.

The success of this procedure depends primarily upon the promptness with which it is undertaken, and secondarily upon the thoroughness of the irrigation and the use of iodoform gauze as a drain. The presence of the gauze stimulates a free outpour of serous fluid from the remotest area of the peritoneum. This in its course washes away all collections of plastic exudate or pus and carries them to the pelvis, whence they are drained by the gauze to the surface.

Cases of slight septic intoxication can frequently be relieved by active catharsis begun promptly and maintained as long as it proves efficient in keeping the temperature near the normal point and the constitutional condition good. With this should be combined judicious stimulation and nutrition. At the first sign of failure of this laxative treatment, within thirty-six or forty-eight hours, the abdomen should be re-opened, adhesions removed, the cavity thoroughly irrigated, and permanent drainage established. Without further comment I wish to put on record the account of a desperate case which was successfully treated in the manner above described :

The patient was a young woman, Emma R., aged twenty-five ; married about two years, but never pregnant. She had had two attacks of pelvic peritonitis during her married life, the cause being unknown. She was subjected to abdominal section at St. Elizabeth Hospital by Dr. A. B. Tucker, of New York, on the afternoon of December 30, 1891. There was found an extensive abscess of the right tube and ovary, with the usual accompanying

adhesions of the omentum and intestines. The diseased uterine appendages were removed in the usual way, but in the process the tube burst and discharged its contents into the pelvis. This was immediately flushed out and the operation proceeded with. Although careful search was made on the left side, no appendages could be found there. A coil of intestine that was firmly adherent to the posterior surface of the uterus from the fundus to the cul-de-sac was not set free. The pelvis was again irrigated and the abdomen closed without permanent drainage.

She rallied well from the operation. The following morning, the temperature was  $99.5^{\circ}$ , the pulse 96. Cathartics were administered, but in spite of free action of the bowels the temperature continued to rise. The morning of the second day, the temperature was  $100^{\circ}$ , the pulse 100. At 8 p.m., the temperature was  $103^{\circ}$ , the pulse 120. I was then called in consultation, and at 11 p.m., when I first saw the patient, fifty-four hours after the operation, she was in a semi-unconscious condition, the temperature being  $104^{\circ}$ , the pulse 130. After learning the history as above detailed, I advised re-opening the abdomen. Hasty preparations were at once made and ether administered to prevent shock, although she could not be sufficiently aroused to comprehend that anything was to be done. The nurse administered the ether, and Dr. Tucker assisted in the operation. A few whiffs of ether produced anæsthesia and relaxation. She was lifted upon a table, in good light, the stitches were removed, and the wound was separated. The omentum, which had been carefully drawn down, was universally adherent. In freeing it, flocculi of exudate mingled with pus were everywhere apparent. Hot boiled water was used freely from a douche bag to clear the field of operation as I progressed, and when the coils of intestines were lifted from the fundus uteri and neighboring parts, a quantity of fetid pus welled up. The coil of intestine adherent to the posterior surface of the uterus, and dividing the pelvis into two cavities to the right and left of the uterus, was not interfered with, but the posterior pelvic spaces on each side were thoroughly exposed and flushed out with about three gallons of hot water from a pitcher. These spaces and the coils of intestines, whenever adhesions were found or foci of pus enclosed, were cleansed with

peroxide of hydrogen, 15 per cent. The entire pelvis from Douglas's pouch up either side of the uterus was then packed with iodoform gauze, 10 per cent., and the gauze left projecting from the lower angle of the wound. A few stitches of silk-worm gut approximated the wound down to the gauze. The patient had required hypodermic stimulation, and was lifted into bed in a condition bordering on collapse. But hypodermics of strychnine, quinine, and brandy, together with rectal enemata and external heat, kept the vital forces at work. She rallied from this ordeal and made slow but steady progress to recovery. This was interrupted in the third week by the formation of a fecal fistula, due either to pressure of the gauze or manipulation in irrigating the abscess cavity. It healed spontaneously under careful irrigation, but a small abdominal fistula still remains at the seat of the gauze drain. The patient's weight has increased from 95 pounds to 135, and six months after the operation she pronounces herself in perfect health.

The case requires little comment. Its lesson is clear. The case was destined to a promptly fatal issue. The patient was saved by prompt and radical interference. It is not enough to open one stitch and explore with one finger with the hope of finding that septic peritonitis does not exist. When septic symptoms are present the wound should be opened boldly, and radical work done in irrigating and draining with iodoform gauze. The seat of the sepsis is within the abdominal cavity; it must be discovered and subjected to external drainage. Many of these patients can be saved in this way; and none should be allowed to die without being afforded this avenue of escape.