

A CASE OF PERFORATING GUNSHOT WOUND OF THE STOMACH AND LIVER WITH POSTERIOR THROUGH DRAINAGE AND RECOVERY.¹

By ROSWELL PARK, M.D.,

OF BUFFALO, N. Y.,

PROFESSOR OF SURGERY IN THE UNIVERSITY OF BUFFALO.

ABOUT 6 P.M., February 3, 1902, a woman of twenty-six years, turned the point of a 22-caliber pistol towards the centre of her body and fired it in a suicidal attempt. She was soon after removed to the Buffalo General Hospital, where I saw her about 7.30 P.M. But one shot had been fired. This evidently took effect in the middle line about an inch above the tip of the sternum. Between the time of the injury and that when I saw her, she had vomited more or less fluid and bloody material. With the exception of complaint of considerable pain and the vomiting as above, her general condition was good. I at once prepared her for operation, and had the back of the body as well as the anterior surface scrubbed and sterilized.

Gas and ether were given as the anæsthetic. The area of the gunshot wound was excised by a wide elliptical incision, which was then extended downward as a straight line incision to the region of the umbilicus. The xiphoid appendix was not only perforated by the injury, but broken loose from its attachment, although not so loosely that its removal was called for. Upon opening into the upper abdomen, a large quantity of fluid and clotted blood presented, and was removed with the hand used as a scoop. Upon withdrawing the stomach, it was evident that the bullet, which had passed through the left lobe of the liver, had cut across the upper curvature a little to the pyloric side of the middle of the curved line. This opening was like a notch in the upper border, which probably had been a double

¹ Read before the American Surgical Association, June, 1902.

perforation at first, with a very slight intervening bridge, which latter was torn in the handling of the viscus. Through it the little finger could be easily passed into the stomach. The stomach seeming reasonably empty, I made no particular effort to clean it out, but at once carefully closed the opening with three rows of fine silk sutures, the first of which closed the mucosa, and the last of which took in some of the peritoneal fat, making a sort of omental graft. After replacing the stomach, it was evident that there had been considerably more hæmorrhage from the bullet track in the liver. I again removed a large amount of blood from the lesser peritoneal cavity, at first with the hand and later by sponging. Altogether at least two quarts of fluid and clotted blood were thus removed.

Of the bullet I found no further trace. Exploring backward through the gastrohepatic omentum, I could not make out any wound or injury of the pancreas; nevertheless, I made a posterior opening on the left side at the costospinal angle, and here cut down upon the point with a long pair of forceps introduced through the front and held in the left hand. Through this opening a good-sized drainage tube was drawn with the forceps, being drawn from without inward to a depth of about six inches from the skin, so that its inner end lay in the cavity of the lesser omentum in front of the pancreas.

This still left a somewhat gaping punctured wound of the liver, the hæmorrhage from which was easily checked by tamponing with a strip of gauze. This strip was left hanging out of the upper end of the abdominal wound. Before closing this wound and before making the final toilet of the peritoneum, I inserted a large gauze drain wrapped in perforated oil-silk, which was passed through the gastrohepatic omentum to such a depth that its lower end was close to the inner end of the posterior drainage tube. The abdominal wound was then closed with silkworm sutures, save for the point where the drain emerged, where secondary sutures were used.

The patient developed no unpleasant symptoms after the operation, save that on the following day her temperature was 102.5° F. She was given two enemata, each of which contained two grammes of antipyrin. She vomited no blood and raised scarcely any fluid at all. After the second day her temperature never went above 100°. The anterior drain was removed on the

third day and the gauze tampon removed from the liver on the fifth. The posterior drain was shortened on the third day and removed on the fifth. Absolutely no fluid was allowed in her stomach for four days, and nothing except water until the eighth day, she being nourished meantime by the rectum. Abdominal sutures were removed the fifteenth day. She left the hospital, March 11, 1902, in apparently perfect health. I have not subjected her to X-ray examination for the purpose of detecting the present location of the bullet, and consequently have no idea just where it may be located.

The important lesson of this case, as most impressed upon my mind, is the value of posterior drainage. Whether she would or would not have recovered without it I cannot say, but I have felt that it was a most wise and successful procedure. Other lessons conveyed by it are not confined to this alone, and would suggest themselves in any similar case with similar or even with unfortunate outcome. Not the least of them is the lack of regard paid to the location of the bullet, which still remains unknown.