INTRAPERITONEAL CYSTOTOMY FOR TUMOR OF THE BLADDER*

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The conception of the operation of intraperitoneal cystotomy and the successful performance of the operation by Dr. F. B. Harrington of Boston in the year 1893 opened the way for the ideal surgical procedure for the removal of intravesical tumors of the bladder.

Harrington's detailed descriptive technic of the operation,¹ and full explanation of the feasibility of his method gave to the profession an operation in bladder surgery of great advantage over other methods now in vogue.

It is now eighteen years since Harrington first performed this operation, and only a very few surgeons have recognized its safety and ease of performance. The high rate of mortality in the surgery of the bladder for the

From the literature I have at command several other surgeons have reported single cases of resection of the bladder for malignant growths by this method, and with success.

As the intraperitoneal operation has not become as general with surgeons as its merits warrant, I trust that the addition to the list of another successful case, in which I operated recently by this method and which resulted in a most satisfactory and speedy recovery, will lead the cautious surgeon to give this method a trial.

REPORT OF CASE

History.—Dr. A., aged 68, retired physician, consulted me last November for slight hemorrhage of the bladder. His family history is unimportant as he has always enjoyed the average good health. Last November, he first noticed blood in the urine and some discomfort in the region of the prostate gland, with the desire for frequent micturition. The blood in the urine was not constant, but appeared only at intervals, accompanied with the occasional passage of small clots of blood. There was no profuse hemorrhage at any time.

Examination.—The prostate gland examined per rectum was normal for a man of his age. Microscopic examination of the urine showed blood, bladder epithelium, a few villous-like shreds, few crystals of calcium oxalate, no pus; the kidneys were normal. Diagnosis, possibly papilloma of the bladder.

I advised cystoscopic examination and sent the patient on March 28, 1911, to Dr. F. S. Dillingham, who reported the discovery of a growth, about the size of the first joint of the little finger, situated a little above and drooping down over the left ureter; any attempt to raise the tumor caused considerable hemorrhage. The tumor was attached by a broad base and its full length, which discouraged any attempt to remove it by operative cystoscopy. Diagnosis, tumor of the bladder, probably malignant. The bladder was washed out daily with boric acid solution and the patient sent to the Pacific Hospital.

Operation.—This was done April 5, by the intraperitoneal method. An incision was made from the pubes to within one inch of the navel, which gave ample room. The patient was placed in the Trendelenburg position and the intestines, omentum and abdominal incision walled off with gauze pads, leaving only the bladder exposed. The catheter was previously introduced into the bladder by the urethra and the bladder irrigated with boric acid solution. An incision, one and one-half inches, was made in the median line in the posterior bladder wall, and with clips holding apart the bladder incision, the tumor was nicely exposed to view. Its position had been accurately located by cystoscopy, being above and hanging over the left ureter; the lower point of attachment was about one-third inch above the ureter. Its base of attachment did not extend into the muscularis, and the tumor was very easily extirpated. The red-hot platinum cautery point was now applied to the raw surface at the seat of the tumor attachment, and the oozing of blood was completely controlled. The bladder was then carefully cleansed of all clots and mopped dry with gauze sponges. The little flow of urine from the ureters during the extirpation of the tumor, did not interfere in the least. The bladder incision was now closed. The first row of suture with No. 0 chromic catgut was inserted by the Connell stitch, taking in all the layers of the bladder wall, completely closing the incision, the mucous surface thereby being turned in and controlling all oozing of blood from the line of incision. The peritoneum was then enclosed over the first line of suture by the Cushing continuous method with No. 1 Pagenstecher linen thread. The catheter having been left in the urethra, the bladder was now irrigated with boric acid solution and slightly distended to test the line of suture, which proved to be water tight. The catheter was now withdrawn from the urethra, and about two ounces of the boric acid solution was left in the bladder. The gauze pads were then removed and the abdominal incision closed in layers. No drainage.

Histopathologic Report (by Dr. E. L. Leonard).—Epithelioma. Evidently low grade of malignancy.

Abdominal wound, intestines and omentum, walled off with gauze pads, showing incision in the bladder, held open by forceps, exposing the tumor, urethra and right ureter. The left ureter is hidden behind the tumor.

removal of tumors, either by the suprapubic or perineal route, whether the growth be malignant or benign, does not give very encouraging results.

Watson,² of Boston, in his tabulated report of 653 cases, shows the unsatisfactory results of surgical intervention by the perineal and suprapubic methods, and suggests the intraperitoneal operation.

Scudder and Davis,³ of Boston, report four cases of the removal of tumors of the bladder by the Harrington intraperitoneal method, and all recovered.

The surgeons of St. Mary's Hospital, Rochester, Minn., in their collection of papers recently published, report fifteen cases of bladder tumors removed by the Harrington intraperitoneal method with but one death.

* Read before the Los Angeles County Medical Association, June 2, 1911.

1. Harrington, F. B.: Ann. Surg., October, 1893.

2. Watson: Ann. Surg., December, 1905.

3. Scudder and Davis: Ann. Surg., December, 1908.

Postoperative History.—The patient recovered from the anesthetic without vomiting and voided six ounces (urine and boric acid solution), three hours after the operation and without discomfort. The bladder was irrigated with boric acid solution three times daily for the first three days, then twice daily until the sixth day when the urine became almost clear, and by the tenth day the urine voided was all clear normal, and the irrigations of the bladder were stopped. The capacity of the bladder by the tenth day had increased to 8 and 10 ounces, while before the operation it was only from two to four ounces. By the eighth or tenth day all postoperative hemorrhage and irritability of the bladder had ceased. After the third day the patient partook of three regular light meals and was quite comfortable throughout the entire period of convalescence, amusing himself reading and relating funny stories to his attendants. He was up and around on the twelfth day and left the hospital on the seventeenth day. The postoperative temperature never arose above 99.4 F. and the pulse remained normal. After the operation there was no abdominal pain at any time, and no more discomfort at the neck of the bladder than had been present for months previously. The only inconvenience which the patient experienced after the intoxication from the ether had ceased was from the pulling of the abdominal stitches.

The surgeons who have adopted the intraperitoneal cystotomy operation for the removal of malignant tumors of the bladder, all agree in the praise of this method over the perineal and suprapubic routes.

The mortality from the cases reported so far, is less than 10 per cent., whereas by the suprapubic and perineal methods it is from 28 to 47 per cent.

In the hands of the careful operator, by the intraperitoneal route the danger of soiling and infecting the peritoneum is practically nothing. In the case here reported, there was no necessity for drainage and there was no postoperative annoyance to the patient; whereas every surgeon dreads the postoperative annoyance to which the patient is subjected by either the perineal or the suprapubic route, and the surgeon's anxiety relative to these postoperative dangers is practically eliminated by doing the intraperitoneal operation.

This single case, with the ease of approach and the ready access to the growth which the surgeon has at command to the base of the bladder, at once suggests the idea that, under favorable conditions, the enlarged prostate gland may be as easy and safely removed and all hemorrhage controlled by closure of the capsule by suture.

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HEMORRHAGIC EROSIONS OF THE STOMACH WITH THE REPORT OF THE AUTOPSY FINDINGS IN A CASE OF EINHORN'S DISEASE*

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Hemorrhagic erosions of the stomach from the viewpoint of the examination of the fasting organ is not an infrequent clinical finding. In 600 consecutive cases in which this routine examination was made as a part of general diagnosis, there were thirty-five cases, or 5.8 per cent., in which definite erosions of the gastric mucous membrane were found. As shown by the accompanying table, these cases were divided among the following disease conditions: Pernicious anemia, general asthenia, carcinoma of the stomach, carcinoma of the esophagus, cardiospasm, cardiosclerosis, dyspepsia ner-

vosa, Schmidt's fermentation dyspepsia, Einhorn's disease, chronic anacid gastritis, chronic subacid gastritis, chronic acid gastritis, chronic gastrosuccorrhea, chronic gall-bladder disease, chronic intestinal catarrh, spastic obstipation, chronic salpingitis and chronic ulcer of the stomach. Two cases of so-called simple erosion, characterized by sudden severe gastric hemorrhage, afforded no fragments of mucous membrane either by vomiting or later by examination.

From a study of these cases the erosions group themselves logically into, (1) those without clinical significance, and (2) those with positive clinical significance.

Into the first group are placed the fragments of mucous membrane which are, for the most part, accidentally recovered. Chronic gastritis, together with the muscular contractions of the stomach and the trauma from the tube, has afforded thirteen of thirty-four cases. This trauma, together with the contractions of the muscular coats, has seemingly been the entire cause in all of the remaining cases with the exception of the two malignant ones, in which erosions were found. It has been noted also that these erosions were obtained only where there was more or less retching and resistance on the part of the individual. Study of most of the fragments in teased preparations or from sections, in those instances in which the erosions were large enough to be so treated, has not thrown any further light on their etiology. There is always a variable amount of small round cells between the gland acini, but it has been quite impossible to distinguish between round-cell infiltration and normal lymphoid structure. In one large erosion from a case of subacid gastritis "the cuticula and crypts were not broken or disintegrated, but in the deeper portions of the glands the cytoplasm stained faintly and was swollen. In places it seemed to be disintegrating and portions of the glands were missing. There was some small round-cell infiltration, but nowhere was it of marked degree." Other etiologic factors determined by Mintz, Wurtz and Leudet, Dieulafoy, Nauwerk, Gerhardt, Langerhans and E. Fraenkel, were not found.

There are, however, two types of hemorrhagic erosions of the stomach of distinct clinical importance, which present fairly definite clinical pictures. They are (a) the so-called simple erosion of Dieulafoy and (b) the chronic and recurring type of erosion described first by Einhorn and now termed Einhorn's disease.

Of the simple erosion, which is characterized by sudden, severe, at times fatal hemorrhage occurring during normal health, usually without pain and with but little sickness, I do not wish to speak, excepting to emphasize the need of a better recognition of the condition and the employment of rational medical treatment. In one of the four cases seen by me death was hastened, if not actually caused, by surgical measures, and two of the three other patients were strongly urged by competent operators to submit to operation. I think it is now quite agreed among surgical writers as well as among physicians that acute bleeding from the stomach is a condition best handled by medical means and not by surgery. In 1901 Rodman reported thirty-two operations for acute gastric hemorrhage with nine deaths, a mortality of 40.6 per cent. In 1906 Laurent reported 93 per cent. recovery in his patients treated medically. A critical review of the literature since these dates bears out this contention more forcibly, and yet such patients are still being operated on. This fact, in my opinion, justifies the clinical grouping of this class of cases in such a way

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