

TRANSACTIONS

OF THE

PHILADELPHIA ACADEMY OF SURGERY

STATED MEETING HELD JANUARY 8, 1929

The President, DR. ASTLEY P. C. ASHHURST, in the Chair
CALVIN M. SMITH, JR., M.D., Recorder

STAB WOUND OF THE LEFT VENTRICLE

DR. WILLIAM BATES presented a man, twenty-eight years of age, who was admitted to the Accident Ward of the Graduate Hospital November 15, 1928. He had an incised wound in the anterior aspect of the left chest. The wound in the chest wall was about one and a half inches long, was vertical and just to the outer side of the left border of the sternum. The patient's temperature was normal; his pulse forty-eight. The heart sounds showed a curious scraping or catching in the rhythm. The pulse rate quickly mounted and the area of dulness in the precordial region rapidly increased. The wound was explored by enlarging the vertical incision upward and downward. It was found that the knife had passed through the costochondral junction of the third and fourth left ribs. This detachment was utilized for further exploration and the intercostal muscles between the second and third and between the fourth and fifth ribs were severed and the ribs broken about two inches from their traumatic detachment. This was made possible by a skin incision at right angles to the middle of the original incision.

This osteoplastic flap was laid back and an opening in the pericardium exposed to sight. Bleeding was rather steady and came from within the pericardium rather than from a cut vessel in the edges of the pericardium. The pericardial opening was enlarged upward and downward. At first nothing could be seen because of the bleeding, but gradually by sucking and sponging it was seen that the left ventricle had a wound in the right upper portion. It was impossible to determine whether or not its opening communicated with the left ventricular chamber, but from the amount of bleeding the reporter believed that it did not. The muscular bleeding was very steady and with each contracture and rotation of the heart there was a steady spray of blood carried in the form of an arc on the table drapings above the wound. The wound in the ventricle was closed with the chromic catgut. The pericardium was then washed out with normal saline and the pericardium was being closed when the heart stopped. A little finger irritation through the wound and ten minims of one to one thousand adrenalin chloride intravenously was given. Intravenous normal salt solution was then started. The pericardium was about closed when the heart again stopped, but gentle massage and additional adrenalin in the intravenous solution reestablished contractions and no further cardiac arrest occurred. The osteoplastic flap was brought into place after the pericardium was completely closed. A small wick drain was put down through the intercostal space on top of the pericardium and the skin was closed with interrupted silk sutures.

During the operation the pulse rate went to 108. The patient was in the hospital twenty-seven days. His leucocytes immediately following opera-

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tion were 10,200 per cubic millimetre, and just prior to discharge were 10,400. The Wassermann was strongly positive; the blood chemistry during his stay in the hospital was normal. The cardiac dulness was greatly increased to the left, and X-ray of the heart showed a very decided increase of the cardiothoracic ratio. Both by electrocardiogram and X-ray this widening steadily decreased until the last X-ray showed a practically normal relationship. Five days after the operation the electrocardiogram showed a true picture of acute coronary occlusion. One week later, or twelve days after operation, with a pulse rate of 90, the electrocardiogram showed no evidence of coronary occlusion and Dr. James M. Talley stated that chronic coronary occlusion might develop later. Two weeks later, or twenty days after operation, with a pulse rate of 75, the electrocardiographic tracing again suggested coronary occlusion. A fourth reading, taken just prior to discharge on December 12, showed no coronary occlusion. During that part of his stay in the hospital when the temperature was elevated and the patient had a high leucocytosis, it seemed as if it were going to be necessary to drain the pericardium for fear of pyogenic invasion of the hæmopericardium. This, however, was not necessary and the patient now is able to do some work while continuing to receive rather strenuous antiluetic treatment.

MORTALITY OF INTESTINAL OBSTRUCTION

DR. SELLING BRILL (by invitation) read a paper with the above title for which see page 541.

DR. JOHN B. DEEVER said, regarding strangulated hernia, that in his experience most cases of strangulated hernia have had too much taxis before being referred for operation as demonstrated by blood in the sac and in the mesentery, the latter particularly favoring gangrene. When it was his privilege to teach undergraduates he always told them not to do taxis, but to operate immediately.

In operating for strangulated hernia, a mistake that often occurs is when having opened the sac and before releasing the strangulation not to cleanse it, as well as to have smears and cultures taken of the fluid contents. Where this precaution is not taken and the fluid contents are infected, release of the strangulation makes communication with the peritoneal cavity, and through this communication the infected fluid can find its way into the abdomen and result in infection of the peritoneum. Intestinal obstruction following operation for appendicitis can usually be avoided. In the speaker's experience the majority of these obstructions occur in the lower abdominal abscess cases. Quite a percentage are the result of the involvement of the terminal coil of the ileum when it forms a part of the wall of the abscess. Where he finds the terminal ileum involved to the extent that it has lost its flexibility, he makes an ileocecostomy or an ileocolostomy. This prevents both immediate and remote obstruction. As this is his practice, he rarely sees an obstruction any more. Bear in mind that this ileocecostomy or ileocolostomy, as the case may be, is not done with the object of arresting peritonitis, if present.

DR. GEORGE P. MULLER said that we were apt to be carried off our feet by the many beautiful pieces of work being done; that of Hayden and Orr

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being the last of a long series, in which the whole thing is made to appear as a form of toxæmia which can be combated by replacing the electrolytes. In experimental lower intestinal obstruction—the kind we usually see—there was no disturbance in the electrolytes, so one cannot expect to do a great deal of good by pumping salt solution into the patient. Doctor Brill found that mortality was directly traceable to delay in operation, in all types of cases except a few congenital herniæ, etc. In the herniæ there was no mortality in the first twelve hours, but after that it was 50 per cent. Regarding paralytic ileus, this occurs mostly in patients with general peritonitis, *i.e.*, when the abdomen was opened it was found swimming with pus. These patients made a desperate fight for a few days and then increasing distention occurred. As to enterostomy Doctor Muller believes that it rarely accomplishes anything except drainage of the loop selected. It is only when peristalsis is very active—and it rarely is—that the upper intestine can be emptied. With Doctor Deaver, the speaker does not believe in jejunostomy; it does no good except in the rare cases where one can demonstrate peristalsis and reverse it. In obstruction following appendiceal operations, when we close with some angulation of the lower coils, it means trouble in a week or ten days. This is traceable to the effects of operation. However, in patients where the appendix had been stripped out of a gangrenous area which reached down into the mesentery of the ileum and obstruction occurs later it is hardly any fault of the operator. In order to avoid obstruction the speaker adopted the McBurney incision, as in this way one gets drainage outside of the coils of the ileum, and no drainage across the coils. It definitely lowers the percentage of obstruction following operation. The speaker thinks the Deaver operation of ileocolostomy is entirely too severe for the average patient. He would not feel justified in making a mid-line incision to do an ileocolostomy in the presence of acute peritonitis.

DR. DAMON B. PFEIFFER said that he has seen a few cases where he is sure that the performance of jejunostomy saved life. In the last few months the speaker had such a case in the Presbyterian Hospital, in which instance jejunostomy certainly saved life. There was infection of the lower abdomen following resection of carcinoma of the cæcum. The infection was limited to the right lower quadrant. The patient became greatly distended and for six days never passed gas; his condition was such that he was practically in collapse and looked ready to die at any moment. In these circumstances jejunostomy was made and he drained off two or three gallons of fluid by the next day. No gas was passed by bowel until three days later. This patient gradually recovered. Doctor Pfeiffer has had two or three other similar cases and believes that there is a small definite field for jejunostomy in which it is definitely a life-saving procedure. He did not wish to stress the indications for its use, but simply to ask for an open mind on the subject.

DR. CHARLES F. NASSAU said that one need not be afraid to give morphin, particularly in the presence of peritonitis. The bowels should

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be put in splints after operation. An endeavor to make the patient's bowels move is dangerous; it is wiser to almost forget that they need to move. In abscess cases, having achieved localization by the Ochsner treatment, why spoil the effect by creating peristalsis which is dangerous and sometimes fatal in the presence of adhesions? He has had two patients who were doing well when the over-anxious attending physicians ordered castor oil because the bowels had not moved for two or three days and who immediately developed obstructions. Until the patient is practically healed up one should depend on the use of enemas for bowel movements.

Sometimes the surgeon treats a strangulated hernia, particularly of the femoral type, where lack of experience will cause him to do an intestinal resection. In this way a certain number of patients are lost, even if the operation be done under local anæsthesia. A little hope and faith in the ability of a bad looking piece of bowel to recover itself when put back where it belongs, the abdomen drained by a tube of gauze and rubber dam to the bottom of the pelvis and enough gauze in the opening to keep the bowel back, will bring much better results. In a number of cases the speaker has put back bowel that years earlier he would unhesitatingly have resected. In other words, one can afford to take the chance of having the formation of a fistula. He is in accord with Doctor Brill in his remarks about fancy operations after the original work. If the original work be well done, let the patients alone and they have a better chance for recovery. Emptying one loop of bowel fifteen feet from where the damage is will not do the patient a particle of good.

PERFORATED PEPTIC ULCER

DR. JOHN B. DEEVER read a paper with the above title for which see page 529.

DR. CHARLES F. NASSAU said that if, instead of division of the pyloric sphincter, which is perfect as far as it goes, the surgeon would do a Finney operation, he would accomplish the same thing; it is a perfectly safe procedure; it cures; and the patients almost never have recurrence of their ulcers. Doctor Nassau does not use clamps, having lost one patient whom he believes died of a necrosis following the use of a clamp.

DR. GEORGE P. MULLER said that years ago he read a paper by Judd suggesting the performance of the Ramstead operation. He has done it five or six times since then and has had one case of marked pyloric stenosis without evidence of ulcer in which that operation was done in either 1920 or 1921. The woman is well and was relieved of her symptoms. This is a minor procedure as compared to that which Doctor Deaver performs. The speaker did not quite see how Doctor Nassau reasons that the Finney operation will give no mortality when compared with gastro-enterostomy. It is easier to do a gastro-enterostomy than to do a Finney operation, and that should in a way make for complications. The Finney is a difficult operation to do even with practice; there is always a tendency for the lower

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edge of the duodenum to tear away. Apparently no operation on the stomach is one hundred per cent. successful and one has to decide in the individual case. He has been doing the Judd operation, taking out an oval section and thus getting a wide-open pyloric end; it is infinitely easier to do. Some years ago, while in Rochester, the speaker saw Judd do twelve of these operations in a few days, and was exceedingly impressed with certain facts, namely, that he had not been making large enough incisions and not making the oval sufficiently big. So far no one operation has proven always successful.

DR. JOHN B. DEEVER said that he could concur in a great deal, but not with all that has been said. He thinks that Finney can accomplish more with his operation than anyone else can. The speaker has done it and had good results, but with Doctor Muller he thinks it more of an operation than is posterior gastroenterostomy. Marginal ulcer will occur after a Finney operation. He agrees with Doctor Muller that there is not any one procedure which is absolutely perfect.