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Drainage in Pelvic Abdominal Surgery

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The problem of drainage in lower abdominal surgery is one of perpetual interest, and may still be said to belong in some measure to the realm of moot questions. While the excessive drainage of thirty and thirty-five years ago has been abandoned, there are still left among us those who drain regularly in certain groups of cases, while others with large experience declare they never drain. The original conception of a drain to be left in the abdomen was a bold one, and its widespread use in the early days (late seventies and eighties) undoubtedly saved many lives. It was then not uncommon for surgeons to drain for a few days in seventy, eighty and ninety per cent. of their ovariotomies, and great was the technic of the glass drainage tube. It had to be watched to keep it acting, the gauze plug removed, and the accumulating fluids sucked out; then if it had perforations in the lower end, the omentum worked into these, became strangulated, and was often pulled out with the tube. Then, also, the tract might suppurate and a hernia often followed. Hunter Robb had a technic which was the forerunner of the rubber gloves worn universally today. He never dressed tubes in the wards of the Johns Hopkins Hospital without slipping rubber bottle nipples over his fingers to prevent contamination. This was in the early nineties.

The excessive drainage we used was in reality a confession of weakness in our aseptic technic, the aseptic conscience was not yet so developed in the operator as to act almost automatically. So we fluctuated from ninety to ten per cent. or even to no drainage at all, and lived in a state of mental anxiety and uncertainty, not having the confidence of a generation of experience and feeling our way toward an uncertain goal. Well do I remember our state of startled scepticism roused by Bennie Baer (peace to his ashes!) in the Philadelphia Obstetrical Society, who reported a lot of "pus tubes" operated upon and ruptured in the removal, and yet the abdomen was closed without a drain. We knew that pus was infectious and would kill, and so could not be allowed to remain; at any rate, it was not a safe rule for sane men to do as Baer urged, give up the drain. A little later we discovered that most of the pus in those big old tubes was sterile, or comparatively innocuous and that Baer had made a discovery and was right in about nine cases out of ten.

I was in England in 1886, and judging by the little surgery I saw Tait do, he drained about everything; which act illuminated his dictum that germs were so harmless that if he could get them dry he would use them as a dressing! And now, after thirty years, there is still use for the drain in some cases, and anent this matter I wish to say a few words.

The field of the drain is limited today by a more thorough routine aseptic régime throughout. What we older men had to learn so painstakingly seems as natural as the simple functions of life to our juniors. The bowel is nowadays less frequently injured, raw areas are covered more carefully, manipulations are more confined to the structures which are removed, the duration of the operation is cut down, and above all we use sterile absorbable catgut and never the dangerous stock braided silk ligatures. If, with all these eliminations, we have brought the surgery of the abdomen so much nearer to perfection, why is there any room yet for drainage? Must we in the occasional case still admit this acknowledged imperfection in our technic, namely, the leaving of a hole in the abdomen to carry off accumulating discharges we would have been glad to prevent?

I feel sure that from time to time the judicious use of a drain over a short period of time, from thirty-six hours to several days, does one of three things: It is an unspeakable comfort to the surgeon to be sure that there is no collection of fluids about the field of operation. It relieves the patient of a vast amount of discomfort in her early convalescence, converting a stormy, febrile recovery into a smooth, peaceful one. It carries off the serum and blood, and, it may be, lingering infections which occasionally give rise to a general peritonitis.

1. I would drain in every case where infectious material has been widespread and there remain some lingering suspicious areas. I include here cases in which there has been soiling by bowel contents.

2. I would therefore drain in all ragged cases, that is, in those where the pelvic adhesions have been so extensive and firm about the floor and walls that the occurrence of considerable serosanguineous weeping is a moral certainty.

3. I would always, without exception, drain after removing a cancerous uterus.

4. I use a small, special drain in most cases of myomectomy, where sometimes weeping and bleeding occur unaccountably.

5. When in serious doubt, I say drain! Some, I feel sure, would reverse this dogma.

Now, a few words as to the drain, where to place it, and how to care for it.

If the trouble in the pelvis is very severe, then a good big drain of washed out iodoform gauze (Max Saenger) in protective rubber tissue ought to be laid through the vaginal vault, to cover the pelvic floor loosely. Never pack it in tightly and never, under any circumstances, allow the drain, however inserted, to extend up or down between loops of bowel. That kind of drain is provocative of obstruction. Let the drain always be peripheral, that is to say, touch or cover some part of the abdominal or pelvic wall, and then lead outside by the shortest possible route. Always give the drain a free vent; do not lay it well and then choke it at the vaginal vault or in the abdominal wall. Such an error is worse than no drain at all, begets false confidence, and may kill the patient. If rubber tissue does not protect the avenue of exit from the drain, the latter will adhere, and it may be necessary to

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give gas anesthesia to pull it out. I have no objection to a rubber tube in the centre of the gauze; it is at times a great help. In all bad cases demanding a drain, drainage should be through the vaginal vault, for to this region the fluids inevitably gravitate and by this avenue is provided the route of immediate escape, the great desideratum in drainage.

I desire now to call attention to a form of drain which I have found most useful in my own work, and which, so far as I know, has not been described or appreciated elsewhere. I call it a provisional or a telltale drain. 1. It is a small drain about the size of a cigarette or a little larger. 2. It is peripheral in two senses, it is laid through the abdominal wall at or near the lower angle of the median incision, above the symphysis, reaching well within. 3. No attempt is made to come into contact with the field of the operation which lies, it may be, well below the pelvis. I use such a drain in myomectomies as well as where serious weeping is to be expected, but never where there is reason to expect immediate infection. Its sole function is to let out all the excess of serum and blood welling up from the pelvis and seeking this direction of least resistance. It is temporary in character, being removed in from twenty-four to thirty-six hours, as soon as the outward flow abates, as shown by the dressings remaining dry.

Let me recall a case, of last fall, in which this form of drain was used. The patient had much tympany and extreme discomfort, and gave us several anxious days, but the presence of the little telltale drain, which showed that the trouble was at least not due to an accumulation of bloody serum, was a source of great relief in determining noninterference. The subsequent favorable course justified our expectations.

In myomectomy, particularly if it has been extensive, patients not drained are often utterly wretched, and pass through a stormy three to five days of extreme discomfort. A little abdominal drain in the lower angle of the incision lets out a considerable amount of serum, and often insures a flat abdomen and comfort, while it relieves the surgeon of much anxiety. Here it is provisional, i. e., used to provide an exit for the excess of serum. It is not a question, apparently, of removing all fluid and blood, but of the escape of the excess by capillary drainage, and so avoiding overtaxing the peritoneum. I find it well at times to stab through the peritoneum, at one side of the lower part of the incision, just before closing the wound. This permits of closing the whole peritoneal incision with catgut. The drain is then brought up through the lower angle of the incision, the rectus fascia, fat and skin. After twenty-four hours all drains should be started out, unless there is still a fairly free discharge. As soon as no decided discharge can be seen on the dressings, say in six hours, then it is time to pull the little drain out, by a twisting motion.

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