

GYNECOLOGICAL POSTOPERATIVE TREATMENT AT THE LONG ISLAND COLLEGE HOSPITAL.*

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THIS paper is not an attempt to verify by statistics the superiority of postoperative treatment of gynecological patients in the Long Island College Hospital over that employed by other operators. It represents, merely, a statement of facts, in that it outlines the technic of a radical departure in our after-treatment, which has given such uniformly good results, in comparison with former methods, as to suggest its presentation. Proof of its efficacy is seen in the distinct improvement of the patient's general condition and morale within a short period following operation.

Briefly outlined, it comprehends four distinct steps.

After the patient has been returned to her bed and placed in whatever position the operator elects, the following "four-step-routine" is carried into effect:

1. Morphinization of the patient.
2. A rectal tube is placed in position.
3. Sandbags are placed on the abdomen.
4. Olive oil is administered by the mouth.

Each step will be considered seriatim.

Morphinization of the Patient.—One-fourth of a grain of morphine sulphate is given immediately after the first vomitus following the administration of the olive oil. Then $\frac{1}{12}$ of morphine is given hypodermatically, afterward, every three hours for forty-eight hours. We notice: (1) less pain; (2) the patient has a comfortable night and

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wakes refreshed in the morning; (3) shock of operation is lessened and nerve tension is relieved.

A mooted question in the after-treatment of surgical cases is that relating to the exhibition of morphine. All operators are not agreed; in fact, some vigorously protest its use. Whether or not their contentions are sound is a debatable question. Certainly, they are not, judging from our success.

The opinions of a few well-known operators with regard to the use of morphine after operation furnish interesting comparisons.

Ashton writes that he does not administer morphine if it can be avoided, as it unsettles the stomach, decreases peristalsis, increases thirst and diminishes the output of urinary secretion.

Graves does not use morphine in routine work, *i.e.*, ward cases, but says he has not been able to consistently carry out the rule with his private patients. He, however, adds that in his average cases, when morphine is indicated, it is his practice to give one-sixth of a grain by hypo if the patient is beginning to get restless or is becoming tired out from pain and loss of sleep.

Reed states that "morphine and its congeners are invariably doubtful and generally dangerous remedies in abdominal surgery, as they arrest peristalsis, provoke vomiting and prevent elimination." His statement is then qualified by his saying that "in certain extreme cases, morphine may be given as the lesser of two evils."

Moynihan: "the administration of morphine is rarely necessary nowadays after operation. More especially since the introduction of Crile's anoci-association method has the pain after operation been quite inconsiderable. I never withhold morphine if the patient is suffering. In old days we were afraid of morphine and surgery was often cruel. One-sixth or one-quarter will give a peaceful night and the patient wakes refreshed and cheered by the repose. I do not think this amount of the drug causes any flatulent distention of the intestines; indeed, I think by relaxing a spasm of the bowel, it may aid in the expulsion of gas. My own chief aim is to rob surgery of its terrors. To-day, we use morphine sparingly, but to the great advantage of our patients."

A critical review of these four opinions boiled down shows that though the use of morphine is not encouraged, it is almost universally employed; and it is a fair assumption to infer that we all use it, just when and how we choose. The opinion of all of the staff at the Long Island College Hospital is unanimous in their approval of morphine for two days and in the $\frac{1}{12}$ -grain doses. The relief of pain is an important desideratum. Pain occurring in the first twenty-

four or thirty-six hours is usually traumatic and not gas distention. The pain occurring forty-eight hours after operation is usually inflammatory. Morphine will control shock, as every medical man knows, and Crile has impressed us with the necessity of the avoidance of shock, both by pre- and postoperative measures. Morphine in one-twelfth grain doses every three hours will take the edge off the patient's nerves and it does somewhat limit peristalsis. It splints the intestines. But decreased peristalsis decreases pain, and the motion of traumatized parts is limited. Morphine used in this way does not promote but controls nausea. It does not lock up the bowels as is proved by gas constantly passing from the rectal tube. It does not depress, as witnessed by the cheerful appearance and countenances of most of our patients the following morning. We believe that by this method there is less of the drug used, and that small and frequently repeated doses do better work than a large dose at infrequent intervals. We have noticed by this plan of morphinization no unsettling of the stomach, no marked decrease of peristalsis, no increased thirst with a dry or too red tongue, nor has there been any marked diminution of urinary output, as shown by twenty-four hour totals on the daily charts. It is not desired to create the impression that some of our patients are not critically ill after operation, or that morphine is a cure-all, but we do believe that morphinization of the patient in this manner is a very essential part of our technic.

The Rectal Tube.—After the patient has been placed in her bed, an ordinary rubber rectal tube is immediately inserted by the nurse. It remains in position forty-eight hours and it is surprising how well its presence is borne and how much gas is passed. Occasionally, a patient will complain bitterly, but as a rule, the rectal irritation is *nil*, and, if present, may sometimes be controlled by injection through the tube of 2 ounces of olive oil which is rarely retained. It, however, exerts a soothing effect on the irritated mucosa.

The Sandbags.—Each sandbag is 12 × 6 inches and weighs 5 pounds. Two of these are placed on the patient's abdomen over the dressings and their positional retention secured by an abdominal binder which allows any change in the patients position without displacing the bags. Each bag is made of unbleached muslin, and after being filled, is divided, by stitching, into three separate sections so as not to allow all of the sand to shift to one end of the bag. This is an improvement on our first bags. The bag, therefore, retains its shape permanently, and when the patient is turned, the sand does not slide all over the inside of the bag. The filled bag is

also covered firmly with oil-cloth to insure better and longer wearing qualities, to prevent soiling of the muslin cover, and to prevent any discharges leaking into the sand. Sometimes only one is employed, especially if the patient is a thin subject or has a small abdomen. The bags compress the abdomen and also tend to immobilize it, and by their constant pressure control distention. Most patients for the first twenty-four hours object to the weight of the bags, but become accustomed to their presence after that period. While the majority openly express their relief when the bags are removed, yet many instances have been noted where the patient did not mind them, or was sorry when they were removed. Temperament plays an important part whether the patient objects or not, as is the case with the rectal tube. The bags are removed on the fourth day. After the removal of large tumors, their action is compensatory and gives relief by furnishing needed support and agreeable compression. The idea of the sandbag is that of Sampson, of Albany.

Olive Oil.—The essayist personally worked out this step in the technic in 1910 and 1911, later reporting his results before the State Medical Society. When the patient has recovered sufficiently from the anesthetic to understand the command to drink and before she has commenced to vomit (and this command to drink must be repeated several times), 2 ounces of olive oil are administered by mouth from an ordinary tea-cup. Persuasion is necessary. Usually, within five minutes after taking the oil, there is copious vomiting. As this is projectile in character, the nurse should stand ready with towel and a basin. The ejected stomach contents are composed mostly of a large amount of ether saturated mucus and some bile, and one vomiting attack usually concludes the performance. Rarely does a patient vomit more than once, and some do not vomit at all. If they do not, nausea rarely persists. If proper time of giving the oil is not adhered to, *i.e.*, if the oil is given after the patient has begun to vomit or is too conscious, either she will not take it, because of the taste or smell, or cannot take it because of her vomiting. It must be given at the right time or not at all. The nurse should be especially instructed and warned that the proper time of administration is the great factor in the usefulness of this step and that carelessness can nullify the whole proceeding. The removal of the ether saturated mucus is, in itself, of decided advantage in relieving nausea. One vomiting attack with its consequent strain on abdominal and pelvic sutures is better than repeated attacks. Constant retching and nausea do not make any patient comfortable. The oil relieves all this. While it is a universally established fact that in

those hospitals employing paid expert anesthetists postoperative nausea and vomiting are not so common as formerly, it is a fact that many patients are nauseated and vomit despite intelligent anesthesia. Undoubtedly, the same effect as from the oil can be gained by gastric lavage while the patient is on the table and before returning her to her bed, but lack of time in most operating rooms seems to prevent this from being universally employed.

Ashton relieves his patient's nausea by having a nurse administer oxygen until consciousness returns, when vinegar is substituted, the fumes being inhaled. He says that oxygen decreases shock, shortens the period of unconsciousness and in most cases, prevents nausea and vomiting. Vinegar, he adds, is the most efficient remedy to prevent nausea and vomiting. Lately we have been administering oxygen while the wound is being sutured, and we find that the patient reacts in forty-five to fifty minutes rather than in three to four hours. Further its happy effect is noted in the rise of blood pressure following operation, in contrast to the usual lowering, as noted in the analysis of our blood pressures, taken for the first twenty-four hours after operation. Also, in prolonged operative cases, it is our custom to administer the "*Axillary Sop*" of Lane, 1000 c.c. by hypodermoclysis into the axillary region, and given with a small needle and taking about forty-five minutes to inject. In these cases, we also notice a rise in blood pressure rather than a drop.

The routine of our technic is further amplified as follows: We insist on early rising, though not as radical as Boldt. Patients are up on the seventh day after the primary dressing. Late rising is regarded by us as a possible etiological factor of postoperative phlebitis. Crossen says that since most operators get their patients out of bed early, we do not see as much postoperative phlebitis. Since he adopted as a part of his routine, the plan of having his patients out of bed within a week, he has not had a case. Before that, 2 per cent. of his patients developed phlebitis.

Postoperative Backache.—A few years ago, investigation of this annoying sequel by personal letters and interviews brought out many theories, from different operators, as to its causation. It was said to be due to undue handling of the intestines and, especially, tugging on the mesentery; to the anesthetic; to renal congestion from prolonged anesthesia; to posture during the operation; to muscle cold due to chilling on the operating table; and to muscle relaxation with consequent straining of the sacroiliac synchondrosis. I had operating tables padded and warmed, operating room uncomfortably warm, oxygen given with the anesthetic, and still the patients complained

of the backache. The most generally accepted theory was that the backache was due to sacroiliac strain and a most effective treatment was devised, consisting of the administration of a migraine tablet, a pillow under the small of the back, and the pelvis strapped with two broad zinc-oxide adhesive straps. But it is interesting to note that since the introduction of the "four-step-routine," this form of backache has almost entirely disappeared.

All suspension cases have standing orders to be catheterized q.8.h. unless they void voluntarily within that period. Since the discussion before this Society on postoperative cystitis, during which the importance of using a soft catheter, instead of a glass one, was brought out, and also that the catheter should be thoroughly lubricated, I suggested a mixture of equal parts of 50 per cent. argyrol and glycerine, as a catheter lubricant and prophylactic. This has worked very well and our postoperative cystitis has appreciably diminished. If no suspension has been made, twelve-hour intervals are ordered, provided the patient cannot void. This tends to the least amount of instrumentation.

Postoperative Catharsis.—We have departed from the hard and fast rule of giving a cathartic on the third day, as we find by our method that many of our patients have spontaneous movements on the third day. Cathartics are not administered in many cases till the sixth day, when there is given a combination of 2 ounces of castor oil, and 1 dram each of the compound tincture of cardamom and paregoric, which is found to be very efficacious. Where the appendix has been removed, no cathartics nor enemas are given till after the fourth day at the very least. It was not so long ago that a case was reported, in which the appendix was removed, and because of later gas distention, on the second day, an enema was ordered. Later autopsy revealed most of the enema in the abdominal cavity. In all of our intestinal work, the bowels are not touched till the fourth or even sixth day, when Russian oil is administered.

Solid food is not given during the morphinization of the patient, as it was noticed that there was a tendency to gas formation and parietic stasis. In this line of parietic stasis with gas distention, we have, by the leukocyte count, differentiated between the stasis from slight intestinal paresis and that due to peritonitic involvement. The leukocyte count is a valuable guide in the presence of such conditions.

With the sandbag there has invariably been no parietic distention, and if there is distention when the bags are in position, it can nearly

always be ascribed to some peritoneal disturbance. We have in the sandbag a potent factor in differential diagnosis.

In conclusion, we might add that this "four-step-routine" is a composite idea, made up from suggestions of the whole staff. It is, at present, in universal use by all of us and giving marked satisfaction. It is certainly refreshing to visit the wards now and see our patients comfortable, able to turn, with a soft and compressible abdomen, and notable absence of postoperative pain. Hunger on the second day is often pronounced. I am speaking now of the majority of our patients with no postoperative sequelæ.

Recently we have added to our technic as a part of the routine, blood pressures before operation and then taken as follows: as soon after operation as convenient, every two hours for three takings, then next morning at ten o'clock, and again the following morning. Combined with this there is an estimation of the red cell count and hemoglobin estimate. Valuable information is given us as to the tone of the heart muscle. As was recently remarked, we do not speak of pulses any more, we speak of pulse pressures. A detailed report of these findings will be published at a later date by the House Gynecologist.

The staff of gynecological department of this institution feels, that after a careful and painstaking trial of this scheme of postoperative treatment, a technic has been perfected which has given us the best and most uniformly gratifying results, as compared with any former line of procedure.

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