Storer (H. R.)

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ILLUSTRATED BY A SUCCESSFUL CASE OF

DOUBLE OVARIOTOMY.

BY

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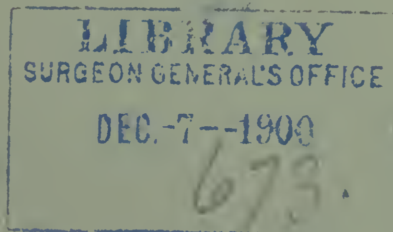

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It has become unnecessary to discuss the question of whether abdominal section, waiving temporarily its performance for other purposes, is, or is not, a justifiable operation in the case of diseased ovaries; the very large percentage of recoveries now obtained by Spencer Wells, Clay, Keith Koeberlé, and others of lesser note, having decided this point authoritatively. It is therefore useless further to collect statistics, save as they may bear upon other and more special problems that are as yet undecided.

We may safely assume that cystic disease of the ovary cannot be cured by medication, and that its alleged relief by chlorate of potash, &c., &c., has been in cases of spurious pregnancy or other error of diagnosis; that tapping, while temporarily relieving, only serves to render the patients' real condition more hazardous, cases to the contrary being exceptional; that ovariotomy is the measure which as the rule ought to be resorted to, oftener in fact than some of its advocates have dared to do, and that the results already thus attained are equal to those of some of the most common operations of surgery. The point that remains to be solved is this: how can the comparatively small mortality now attending this operation be still farther reduced?

As bearing upon some special points involved in the solution of this question, the details of one of my late cases may prove interesting, the more so perhaps to the profession in Canada, from the fact that the patient was sent to me from one of the provinces.

Inasmuch as some of the cases of ovariotomy that are attended by the most fearful complications, recover, "irrespective or in spite of the treatment pursued," many have been inclined to underestimate the question of the relative value of incidental points, and to consider them all of trifling importance. So far from this being the case, I believe that in many of these remarkable instances of recovery, it is just the greater skill of the operator called out by the emergency, and his increased attention to the after treatment, that produce, against probability, as it were, the favourable result. On the other hand, a certain proportion of cases still die; many of them in skillful hands and without complication. This untoward event ought not to be considered, as it too frequently is, the effect of chance or the visitation of Providence, but rather as owing to definite causes, capable of being known, and as capable of being avoided.

Mrs. Dunham, aged 43, was sent to me for operation during the month of Oct. 1867, by my friend Dr. John Berryman of St. John, N. B., by whom she had been tapped some two months previously. She is the mother of six children. About two years ago she first noticed a small tumour in the right iliac region, which had steadily increased in size till the paracentesis already referred to. Patient now very much exhausted from effects of extreme sea-sickness upon the voyage. Upon examination the abdomen was found moderately distended by an obscurely defined mass, filling its central and lower portions and over-lapping each side, from which the abdominal wall could not be distinctly separated by lifting its folds. Throughout the tumour there were indistinct and purely localized centres of fluctuation, giving the idea of a multilocular cyst containing many pockets of dense and tenacious fluid. By digital examination of the vagina, it was found that there were present both cystocele and a protrusion downward of the posterior portion of the upper vagina, bounding Douglas' fossa; the recto-vaginal septum being unaffected. Through this region there was more distinct fluctuation, giving the impression that there existed an inferior cyst which was very much larger and filled with a more serous fluid than those above it; an unusual occurrence for a polycystic ovary. The menses which were now due not having appeared, it was thought best to defer the operation for a while, and thus to allow, in addition, the restoration of the patient to her usual state of health and an opportunity for special preparatory treatment. Ox gall was therefore ordered, as recommended by Mr. Clay of Manchester, to regulate the bowels, and the mur. tr. of iron, that favourite prescription of Sir James Y. Simpson, as a renal depurant. There had moreover been present an inclination to irritability of the bowels, for which, preliminarily to the ox gall, she was put upon a simple diet and gentle correctives.

Under the above treatment, the patient steadily improved in health; the menses however, did not reappear. It was thought best to wait a while in view of the chance of pregnancy; several instances having now been put upon record where the case has been gravely and even fatally complicated by the unsuspected existence of this condition at an early period before its presence could be determined by the ordinary methods of examination. Upon the other hand, it was possible that the catamenia had been suppressed, as so often occurs, by the sea voyage, or by the sudden and unexpected occurrence of the climacteric, to nearly the ordinary age for which the patient had arrived.

As weeks passed, however, more urgent symptoms began to show themselves. The upper portion of the abdomen rapidly filled, dyspnœa and other signs of pressure became marked, and it was evident that operative measures must at once be resorted to, to save the patient's life. Accordingly, at ten o'clock on the morning of November 20, anæsthesia was induced by sulph. ether conc., there being present Drs. Graves, Lynam, and Hooper, of the United States Marine Hospital,—Wheeler, of Chelsea,—Stone, of Boston,—and Mr. F. G. Jordan, of St. John, a student of Dr. Berryman. The details of the case I take from the notes of my assistant Dr. Stone, and Dr. Wheeler; the latter gentleman, as in my last case of ovariotomy, had charge of the after treatment, and it is but justice to state that the success in both these cases was owing, in a great measure, to his judicious and untiring care.

"Precaution having been taken to keep up the circulation by the application of hot bottles to the feet, an exploratory incision was first made about half an inch below the umbilicus, and the same distance to the right of the median line. Upon dividing the integument, fat and superficial fascia, a pocket was opened from which was discharged a small quantity of laudable pus. By careful continuation of the dissection upon a director, the peritoneum was divided. Instead, however, of a free cavity being exposed, it was found that another small pocket had been opened, bounded by walls of adhesion, which entirely surrounded it, save at one point towards the left. Through this a small stream of quite limpid fluid began to empty itself. It was at first feared that the cyst wall might have been pricked, but upon careful examination it was found that the fluid was ascitic, and by enlarging its outlet an amount of some two and a half gallons was drawn off. Exploration now showed that the most extensive adhesions existed throughout the greater portion of the abdomen, in consequence of the subacute peritonitic inflammation occasioned by the tapping at St. John. These adhesions were broken down with extreme difficulty, particularly in the umbilical and

epigastric regions. Attempts were now made to lessen the size of the tumour by puncturing it by a trocar with tubing attachment. It was found, however, that the contents of the cyst were viscid, albuminous, and semi-gelatinous, so tenacious, indeed, as not readily to escape through the canula. It is probable, moreover, from the evidence furnished by Mr. Jordan, who had been present at the tapping, and who had particularly noted the character of the fluid then drawn off, that a major portion of this had been ascitic, and though a cyst or cysts had been punctured, that but a small portion of their contents had been evacuated; enough, however, had exuded into the cavity of the abdomen to have decided the occurrence of the peritonitic attack. The incision was now extended both upwards and downwards, and the tumour lifted out by Prof. Storer and Mr. Jordan, as little traction as possible being exerted, the pedicle of the mass being very broad and short. Dr. Storer's clamp shield was, however, applied without difficulty, and sufficient compression of the pedicle having been made, it was divided with the scissors. Attention was now directed to the general condition of the patient, who had rapidly passed into a state of collapse. The pulse could not be discovered, and the respiration had sunk to about sixteen in a minute. The abdominal flaps were immediately laid together, the clamp shield still remaining in situ, a piece of flannel was placed between the intestines and peritoneal surface, not so much to keep up the heat of the former as to exert pressure upon the bleeding points of the latter, and the attention of all present was turned to efforts at resuscitation. Mustard and hot water, even to the extent of blistering, were applied to the breast, neck, and limbs, and ammonia to the nostrils; the feet and hands were smartly bastinadoed, and at the suggestion of Dr. Lynam, an enema of brandy was administered. These measures were persevered in for an hour and ten minutes before reaction was established. At two o'clock, p.m., the patient being apparently comfortable, the abdominal walls were re-opened, the condition of their contents found as they had been left, and that all hæmorrhage had been prevented by the clamp shield and peritoneal compress, although no ligatures had as yet been applied. All present being somewhat exhausted by the exertions they had thus far been compelled to make, opportunity was taken to enjoy a hearty dinner.

"At 2.45, Prof. Storer removed the flannel with which he had enveloped the intestines, and re-examined the pedicle. It was found that though the patient was of a hæmorrhagic diathesis, as shown by an unusual oozing of blood from the abdominal wall during and after its dissection, requiring in several places the application of

perchloride of iron, and though the hypertrophied uterus was much congested, as was also the broad ovarian stump, yet the clamp shield had prevented even a drop of blood from escaping. The pedicle was sutured rather than ligatured, the stitches, ten in number, being passed from side to side, and so closely as to act both as sutures and ligatures, by a modification of Dr. Storer's method of "capping" the pedicle; sufficient space being left between each of the stitches to allow free capillary circulation, and thus to prevent mortification of the extremity. Upon proceeding to examine the condition of the other ovary, it was found that this also was diseased, and occupied the entire cavity of the pelvis, having displaced the uterus upwards, and that its size was that of a child's head at full term. So firmly wedged was it within the pelvis, and so great was the resistance of the promontory of the sacrum from above, that the united strength of Drs. Storer and Hooper was required to dislodge the tumour. The clamp shield being again applied, division was effected as before, and eleven metallic sutures inserted in the T shaped pedicle close to the uterus. This smaller tumour (the left ovary) weighed two and a half pounds; the two, with their contents, weighing thirty-six pounds. The abdominal wound was now closed by thirty double sutures of annealed iron wire, electroplated with silver, introduced by Simpson's hollow needle, and the patient left in Dr. Wheeler's care." (Dr. Stone).

The wood-cut here appended shows the size of the tumours relatively to

each other, and to the normal female pelvis; the "dummy" uterus also exhibited, prepared by Mr. Jordan, serves to represent the hypertrophied condition of the organ and its displacement upwards by the pelvic tumour.

"Thursday morning, 21st Nov.—During the evening and night the patient gradually came up from the shock of the operation, feeling much exhausted in strength. Has slept somewhat during the night at short

intervals; complains of little or no pain in the abdomen. Pulse about 120, and soft. Stomach somewhat irritable; to quiet it she takes small pieces of ice, as well as to relieve the dryness of the throat, though the tongue is moist; catheter used every four hours to empty the bladder. Some distension of the upper abdomen, but not much tenderness. The wound remains dry and looks well.

"Friday 22nd, and Saturday 23rd.—Has remained comfortable in every way and slept sufficiently. Thirst continues, and vomits less. The skin at a good temperature and at times a little flushed with heat. Takes a little brandy; also some gruel made of flour with milk. Some more distension of the abdomen. Pulse less than 100. Is having a dark sero-sanguineous discharge from the vagina with the usual symptoms in the back and limbs of her menstrual periods. Takes once in four hours a suppository of ⅛ gr. of sulph. of morphia. Alternates, by mouth the mur. tr. of iron, 15 drops, with the same quantity of the oil of turpentine, so as to get their combined influence upon the kidneys. The mind cheerful and hopeful as to the result.

"Sunday 24th, Monday 25th, Tuesday 26th.—General appearance continues to improve. The stomach behaves better and retains nourishment. The abdomen continues swollen; slight tenderness on pressure. The wound looks well. Have applied two or three times the saturated tr. of iodine over the whole surface of the abdomen. The urine quite free in quantity. Bowels have moved by the use of soap and water injection.

"Wednesday 27th, Thursday 28th, and Friday 29th.—Continues quite comfortable, sleeps well; takes beef tea in addition to her other diet, with wine and brandy. Pulse only 90. The night previous (Tuesday) she had a slight chill followed by some reaction; the pulse came up to 120, but subsided again. Connected with this last symptom a little abscess or pocket of pus developed near the line of incision, which was liberated by untwisting a few wires. This was the first appearance of any discharge from the wound, nearly two thirds of the upper part having already united by first intention.

"Saturday 30th, Sunday Dec. 1st, Monday 2nd.—The patient continues to improve; the abdomen more flat; quite a free but entirely superficial discharge from the wound. Has had some pain in the bowels, with several dejections of a dark, bilious character. Has required injections of starch with the tr. opii, and port wine in the place of brandy. To-day (Dec. 2nd) took out all the wire sutures from the wound, save seven at its lower extremity.

"Saturday, Dec. 7th.—For the last week the patient has been grad-

ually gaining in strength. Appetite good, and sleeps well at night. The bowels have been rather troublesome; the discharges being too frequent, dark and liquid, with some pain. Have discontinued the mur. tr. of iron, and continue old port wine in the place of brandy, and a gr. of quinine three times a day. The wound continues to contract and discharge less, there being little or no irritation from the presence of the few remaining wires, which seem to act as a support to the lips of the wound.

" Saturday, Dec. 14th.—The patient steadily gaining; complains less of the bowels. The discharges less frequent, so as to require no opiates. She is able to sit up on a lounge and get into a chair for a short time each day. To-day, have removed the last sutures in the wound, which has now healed, except at one or two points, and have touched these with nitrate of silver.

" Monday, Dec. 30th.—Patient is able to sit up most of the day, and has on her usual dress; walks about the room, and is free from pain. Wound entirely healed, save at a single point, and this is only superficially united. To-day leaves for St. John, and her home; just five weeks and three days from the time of the operation; the husband and wife being a very happy couple." (Dr. Wheeler.)

Jan. 16th, 1868.—Learned by letter that the patient arrived safely at St. John, in good condition, and that her health is rapidly improving.

In the case just related, there were several unpleasant complications:

I. Both ovaries were involved.

II. The patient had been tapped, and in consequence, subacute peritonitis had occurred, attended by the formation of very extensive and firm adhesions.

III. Ascites was largely present.

IV. The left ovary was so firmly packed beneath the brim of the pelvis that it was extricated with great difficulty, and indeed required much taxis to start it from its socket.

V. The tumours were practically non-pediculated.

VI. Very severe collapse occurred during the operation.

VII. The woman was possibly pregnant, and yet to reward us for taking the responsibility of operating, and of completing the operation when begun, in the face of every apparent probability, the woman made a magnificent convalescence.

A word as to these several points.

I. We find that the implication of both ovaries is no bar to the operation. This has been the experience of other operators. In another case of double ovariotomy that I have had, complicated with a very large

Wolffian cyst that was also removed, recovery was rapid and complete. Only two years since, Scanzoni remarked that he had been able to find but twenty-five cases of double ovariotomy reported.* In Mr. Spencer Wells' first 150 cases, the double operation was required only seven times, and of these patients four recovered. Mr. Wells has shown that the greater frequency of finding both ovaries diseased at autopsies than at vivisections, is owing to the fact that the latter examination is made at a much earlier period; the allowing the disease to persist in one ovary seeming to render its occurrence in the other more probable.†

II. Tapping prior to the operation for removal proves one of the greatest sources of danger; the resulting adhesions increasing the risk of hæmorrhage, of shock and of renewed peritonitis.

III. Ascites is feared by many, and by some is considered symptomatic of the disease being malignant. I consider that in itself the serous collection is of little importance, save as tending to obscure the diagnosis, or as depending upon cardiac, renal, or hepatic disease, points usually easily enough made out. If either of the diseases here referred to is present, it is yet not necessarily a bar, since it may be itself merely the result of the pressure of the cyst. I go further than this, and will say, contrary to the opinions of most authorities, that cancer of the ovary is also no bar. It is very rare; scores of the cases reported as such from autopsies, being merely aberrant varieties of ordinary cystic disease. Where it is present, the case is amenable to precisely the same rule as governs excision of the carcinomatous mamma, testicle, cervix-uteri, or even the fundus of that organ when the cervix and lower third are unaffected; the ovarian and fundal cases being only somewhat worse than the others. Where without an operation the patient must surely die, and that soon, the chances *all* being against her, and where, with the operation, she may live, she should have, if she desire it, the ghost of a chance, certainly its solid substance, and he is a coward who fails to afford it to her, and seemingly cruel or wickedly jealous if he deny this right or the opportunity to afford it, to others.

IV. To find the pelvis, after one ovary has been removed, entirely filled by a cyst, the walls of which are extremely thin and delicate at that, is no pleasant discovery. In such a case, however, there is nothing to be done save to manipulate as dexterously as possible, and avoid its rupture. This I believe preferable to tapping from above, or from be-

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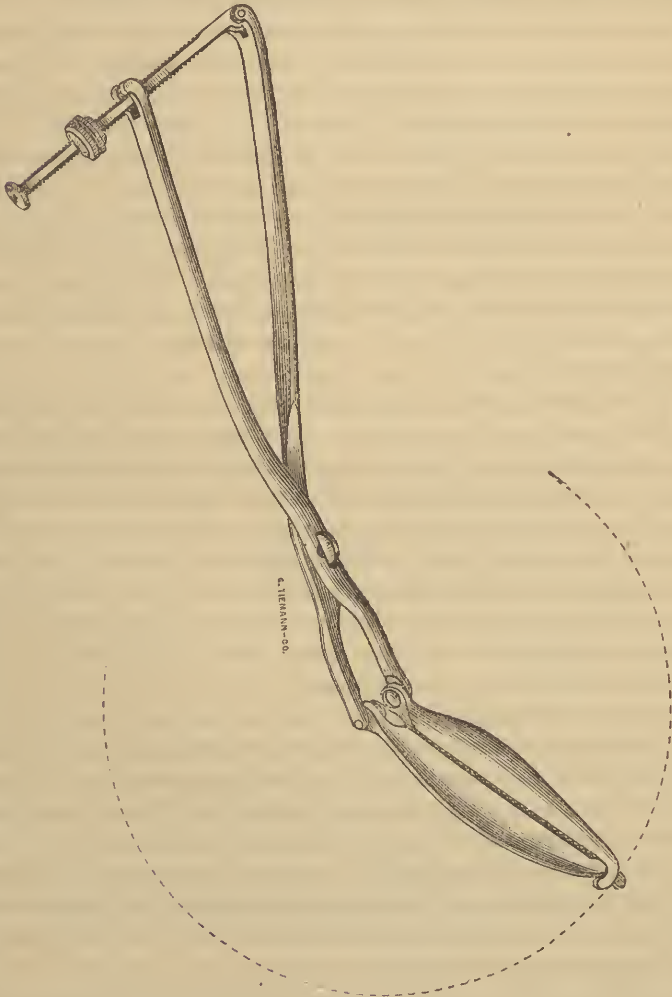
* Wurzburg Medicinische Zeitschrift, 1865.

† London Medico Chirurgical Transactions, Vol. l. 1867.

low through the vaginal roof, as is strongly advocated in ordinary cases, by my friend Dr. Noeggerath of New York, and has indeed, in quite a number of instances, been practised by him.

V. To find that no pedicle exists causes me very little anxiety. To most operators it has proved a very serious matter. I have yet to see



the case, however, and I believe there is none upon record, complicated though it may have been, in which, provided it has been possible to complete the operation, the use of my clamp shield would not have effectually prevented severe primary hæmorrhage, or its subsequent occur-

rence. I know that this is a bold assertion; yet I have no hesitation in resting it upon the capacities of the instrument as already proved in practice, and am willing to guarantee the result, where it is properly applied. I here insert a cut of the instrument, which is very neatly made by Tiemann & Co., of New York, and refer those interested in the subject to papers upon its use that have already been published.*

VI. I believe it best always to endeavour to prevent collapse, by measures resorted to prior to and during the commencement of an operation, for the purpose of keeping the circulation regular, and, by reflex irritation, the general innervation normal. This was attempted in the present instance, and probably lessened the shock, and thus prevented the patient from being lost. As it is, the case goes upon record, as, in its bearing upon the necessity of keeping up efforts for the re-establishment of life till the very last moment, collateral to what is so frequently seen in the successful resuscitation of the still-born fœtus. The persistent employment of a combination of stimuli, among which the brandy enema and flagellation of the extremities were pre-eminent, may serve as an example to be followed.

VII. It is undoubtedly a disgraceful thing to operate, as has been done, only to find both ovaries healthy, and the womb containing a fœtus. It is nearly as disgraceful, in these days of a closer differential diagnosis, to find that advanced pregnancy, which had been unsuspected, exists, even though it were obscured by an ovarian cyst; for this is a very different thing from performing the section during pregnancy, after the fact of gestation had been ascertained and the reasons for and against the measures employed had been carefully and clearly balanced. In the case now reported, the probabilities regarding pregnancy were weighed and the result showed the wisdom of the course pursued.

In the present instance the menses had been absent for two months, and yet re-appeared subsequently to the operation, although the ovaries had both been removed, and the major part of the Fallopian tubes also. I have elsewhere pointed out the physiological importance of phenomena of this character, different as it is from an ordinary hæmorrhagic discharge, with which it is usually confounded. In my last previous case, also successful, I operated purposely during menstruation; all other operators, so far as I am aware, have avoided doing this. The result was as favourable as could have been desired.†

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* Transactions of the American Medical Association, Vol. xvii 1866. p. 107; New York Medical Record, Oct. 16, 1866, p. 385.

† Am. Journal of the Med. Sciences, Jan. 1868, p 77.

It will be seen that I employed, both upon the pedicles and the abdominal wound, metallic wires instead of silk. This latter material I have discarded for several years, always employing for operations of whatever character, either the wires or acupressure.

Those patients who die during or after ovariotomy are ordinarily carried off by nervous shock, primary or secondary hæmorrhage, or by peritonitis. I attach great importance to the preliminary preparation of the patient, and, as I have already implied, to a careful after-treatment; points upon which I have lately taken occasion to enlarge at a recent special meeting of the New York Academy of Medicine,* before which I had been kindly invited to bring for discussion, my new methods of treating the ovarian stump after excision, both of them successful in practice, to which I have respectively given the names of "Capping" and "Pocketing."† A modification of the former of these measures was employed in the case now reported, and they are not unlikely destined to take precedence of all other methods in practice, as most rational in theory, and it is to be hoped, practically most successful in averting three of the four great dangers to which I have alluded; namely, hæmorrhage, primary and secondary, and peritonitis. I may add perhaps, with justice, the fourth danger also, as it is ordinarily diagnosticated; for no doubt very many of the cases reported as dead from shock, have in reality perished from thrombosis or embolism, certain causes of which my new methods will tend to prevent.

There is much more regarding this matter of abdominal sections in which I hold peculiar views of my own. Some of these views are to a certain extent at variance with those generally entertained; but I cannot at this time do more than allude to them. There are many physicians who still doubt as to the propriety of ever attempting the removal of the entire uterus from above, an operation which I have now performed five times; all of the cases having been of dire necessity, and the worst one of them all having recovered; ‡ while in the unsuccessfully four, primary hæmorrhage, the more usual cause of death, was easily and entirely prevented by my clamp shield. There are those who would hold it little short of homicide, that we should venture to remove, in a desperate case of umbilical hernia, the entire sac by elliptical incision. In a case of my own I employed this novel expedient. The patient died, it is true, but union of the abdominal wound by first intention had been obtained, and the death was from extraneous causes.* I mention these cases

* New York Medical Gazette, 28th Dec. 1867. p. 106; New York Medical Record, 15th January, 1868, p. 519.

† Am. Journal of the Med. Sciences, Philadelphia, Jan. 1868.

‡ Ibid, Jan. 1866.

only as bearing upon the general question of abdominal section, and as tending to strengthen the hands and cheer the hearts of that great army of the brethren, who, slow to take the responsibility in a doubtful case, are quick and ready to follow a successful precedent. We should not fear, as no doubt many do, the encouragement which the recent grand success of M. Péan in removing the spleen,* will give to Spencer Wells to renew his own brilliant attempts, and still more, that it will lead others less expert to essay their skill, but rather rejoice that a human life, else lost, has been saved, and trust that still others may be also.

* New York Medical Record, 16 April, 1866, p. 73.