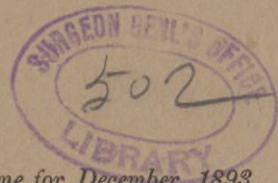


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REPORT
OF
TWO YEARS' WORK IN ABDOMINAL SURGERY
AT THE
KENSINGTON HOSPITAL FOR WOMEN,
PHILADELPHIA.

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THE following report embraces all the cases of abdominal section done in the Kensington Hospital for Women during the past two fiscal years. I shall briefly discuss the general features of the work, and then confine myself to certain points which I believe are of general interest. There have been ninety-nine (99) celiotomies, of which ninety-seven (97) have been done by myself, and two by the assistant-surgeon of the hospital, Dr. Applebach. There have been five deaths, and it is gratifying to be able to show that not one of these was due to infection on the part of the operator. The rule has been followed in these cases to operate for disease only, and a study of the annexed tables will show that almost without exception the patients were suffering from gross lesions. This method commends itself to all operators of sound judgment, as thereby there will be no future regrets because of the removal of organs not hopelessly diseased. The operations were done because the women were invalids and incurable otherwise, or else to save them from impending death.

Early Operation.—It is still necessary to urge upon the profession the necessity of early operation in cases of serious disease of the pelvic and abdominal organs. The old policy of palliation and delay until the disease was approaching a fatal termination, before resorting to operation, is still claiming its many victims. This policy is the cause of most of the deaths in the hands of abdominal surgeons, and also of most of the partial successes which follow operations. The profession has at last accepted the teaching that delay is worse than bad in the treatment of ovarian tumors, and now it is universally conceded that cases of ovarian tumor should be submitted to operation so soon as a diagnosis is made. Tapping and all other forms of palliative treatment have fallen into deserved disrepute.

But this is not the case with pyosalpinx, abscesses of the ovaries, extra-uterine pregnancy, and hydro- and hæmatosalpinx. There is no doubt in the minds of those who see the most of these conditions, that the proper treatment of them is their early removal by cœliotomy; but this teaching has not been thoroughly accepted by the profession, therefore the necessity for repeatedly insisting upon it. Without operation, it is only by accident that such patients ever become well, and those who do become well run many risks which could be avoided by prompt operation,—risks far exceeding those of the operative treatment. Delay in operating in this class of cases brings these unfortunate sufferers to the condition of chronic invalidism. These are the patients that have been in bed for months or years with repeated attacks of peritonitis; and often, under the too prevalent method of management, they come into the hands of the surgeon emaciated wrecks, pus-poisoned, with depraved nutrition, and with a shattered nervous system, and perhaps with crippled vital organs. These are the patients that die after operation, should this prove difficult and tedious. But worse than that, these are the patients who are not perfectly cured by operation, nor is it to be wondered at that they are not restored to perfect health. Habits of invalidism when long continued are hard to break up; lost nervous tone is difficult to restore, and emaciation beyond a certain point leaves a permanent impress upon the body. These reasons of a general character for the failure to cure all of these cases are sufficiently apparent; but in addition to them we have the local results of these diseases to contend with. Repeated attacks of peritonitis result in the agglutination of all the abdominal viscera contiguous to the pelvis. Bowels, omentum, bladder, and sexual organs become fused together. In cases of suppurative disease, the bowels contiguous to the pus-sacs are apt to become infiltrated with pus and their walls to undergo caseous degeneration, thereby giving rise in many cases to the occurrence of fecal fistula or to post-operative intestinal adhesions. Such cases, when of long standing, are especially difficult to deal with. The adhesions have become organized, making them difficult to break up, and also leaving extensive raw surfaces in the abdominal and pelvic cavities. It is not to be wondered at that post-operative adhesions form in some of these cases. When operated upon early the adhesions are not organized, and the exudate will disappear after the operation by absorption, and thus the peritoneum is left in a decidedly more normal condition.

The policy of delay works badly in every way. While this policy is pursued, these poor women continue to be invalids; many of them die from intercurrent attacks of peritonitis, and those who live on, when finally they submit to operation, do so with lessened chances of recovery from the operation, and, unfortunately, also with greatly increased chances of but partial restoration to health. It is only by the resources of the greatest good judgment and therapeutic skill that many of these poor sufferers are restored to health by prolonged management after operation.

Yet those who style themselves conservatives take the result obtained in this very class of cases and use it as an argument against operative treatment. It is due to the cause of truth, that it be made plain that it is the teaching of those so-called conservatives which is responsible both for the deaths and the failures to cure in the class of cases under consideration.

The question of early operation in fibroid tumors is likewise of present interest. I can add my testimony to that of others, that the older teaching concerning fibroid tumors is very erroneous. The idea that these tumors are of a harmless nature, or nearly so, that they never cause death, and that they disappear at the menopause, comes grievously short of the truth. It is true that cases of fibroids of the uterus are met with, especially the sub-peritoneal variety, in which there are few symptoms due to their presence; they cause neither hemorrhage nor pressure; but such cases are exceptions. In the majority of cases women having fibroid tumors are invalids, either because of the hemorrhages due to the tumor, or because of pressure symptoms. In many cases, also, fibroid tumors are complicated by diseased uterine appendages, and in such cases the women suffer from the symptoms of both conditions. For some years after I began the practice of medicine, imbued with the teaching of that period, whenever I discovered a fibroid tumor I felt rather pleased, and would assure the patient that she should consider herself fortunate, because, as the tumor was not ovarian, it would be unnecessary to operate upon her. As my experience increased, however, I discovered that such patients were not so pleased as I was myself; the large majority of them were great sufferers either from hemorrhage or from pain, and this continuing for years made life a burden to many of them. It became apparent to me, also, that the teaching concerning the disappearance of fibroid tumors of the womb at the menopause was a mistake. In the first place, the menopause is usually postponed from five to ten years beyond its usual period; in the second place, I have seen numerous cases in which the fibroids grew very rapidly after the menopause; indeed, most of the women upon whom I have been obliged to do hysterectomy had reached or passed the menopause.

I am not yet ready to accept the proposition that every fibroid tumor should be removed as soon as it is discovered; but I am convinced that this plan of procedure would be much better than the one that has prevailed up to the present time. Granted that the rule is that the subjects of fibroid tumors become invalids for many years, even if they do not lose their lives, it follows that, if they can be safely relieved of their tumors, this is urgently necessary to save them from weary years of suffering. It is difficult to estimate the actual danger to life of fibroid tumors, but it is not inconsiderable. If these tumors can be removed with approximately the same mortality, we have as an argument in favor of such removal the many years of suffering which thus will be prevented. At the present time hysterectomy is done only for the larger fibroids, and for those which are directly threatening the life of the patient; yet in the hands of our best operators, under

these conditions, hysterectomy is done with a mortality approaching five per cent. Were the indications for the operation extended and these tumors removed when still small, I believe that this could be done with a mortality of not more than one or two per cent. This being the case, the benefits of operation should be stated to all women having fibroid tumors. I believe that most of them, when fully aware of what is to be expected from operation and without it, will elect to have their tumors removed while they are still small.

Drainage.—My practice with reference to the employment of drainage has considerably altered within the past two years. Prior to that time I drained ninety per cent. of my cases; hence I am able to speak of the results of drainage from the stand-point of experience. I do not believe that the employment of drainage has ever cost me the life of a patient, and, on the other hand, I am quite certain that it has saved many lives. My reason for employing drainage as a uniform practice was that hemorrhage had occurred several times in cases where it was unexpected; hence I felt that if I could not tell when to expect hemorrhage, it was better to employ a drainage-tube in order that I might have notice of its occurrence. The only evil which I can attribute to drainage, in my hands, is that it prevents a perfect apposition of the abdominal wound, and therefore I believe it is a predisposing cause of ventral hernia. The desire to restrict the number of hernias among my cases has been a strong factor in causing me to abandon the practice of draining all cases. As my experience grew I no longer felt the same fear of unexpected hemorrhage, and the feeling that in many cases the drainage-tube could do no possible good, and that it was a predisposing cause of ventral hernia, induced me to reduce its use to those cases in which I felt it was advantageous. As it has always been my practice to attend to drainage-tubes myself, I became aware that only exceptionally was much drainage discharged or removed through the tube. This fact has led me to believe that the influence for good of the drainage-tube has been overestimated. At the present time I use the drainage-tube for all operations which I believe to be septic, including pus-tubes, hydrosalpinx, ovarian abscesses, etc.; also, in all cases in which there have been extensive adhesions, especially if these are of a vascular nature; in other words, I drain all septic cases and all cases in which I expect much leakage after the operation. The results of those who do not employ drainage make it clear that very often in this class of cases patients would recover without drainage. It is true that many cases of pus-tubes and hydrosalpinx are not septic. Whatever germs may have been present have died. In such cases, if the organic débris is thoroughly washed away with water, they will recover equally as well without as with drainage. But the trouble is that it is impossible to separate non-septic from septic pus cases; hence, as I am convinced by experience that the drainage-tube does no harm except from the stand-point of hernia, I have felt that it was wiser to employ it in all of these doubtful cases. Careful observation, however, has convinced me that the amount of the discharge coming through the

drainage-tube has been greatly overestimated. What has been considered as leakage in many cases is nothing more than water which has been poured into the abdominal cavity during operation and not sponged out. While admitting all this on the negative side of the argument, I am strongly in favor of drainage in bad cases. The worse the case the more necessary is drainage. The healthy peritoneum will absorb a great deal, but the diseased peritoneum of a feeble subject should not be overtaxed, for at times it will fail to do its work, and the result will be death from septic peritonitis. The first year covered by this report I drained in forty-three per cent. of cases; the second year in thirty-two per cent.; formerly I drained in ninety per cent.

Gauze drainage is of value in certain cases. In incomplete operations and where there are extensive raw and vascular surfaces I think it is a most useful addition to our armamentarium; but these indications are seldom met with. It is to be used wherever we wish to favor the formation of adhesions, which fact shows that its usefulness is limited, because, as a general statement, adhesions are not to be desired.

Suturing the Abdominal Wall.—During the past eighteen months I have employed the method of Edebohls in suturing the abdominal wound. Increasing experience with the method convinces me the more of its value; and there is every reason to believe that it will reduce the number of hernias following operation to an inconsiderable percentage. The method is to bury a row of silkworm-gut sutures at the level of the aponeurosis. The skin and subcutaneous fat being pushed to one side, the needle is entered in the aponeurosis, passed through it, through the rectus muscle and the peritoneum upon one side, and in the reverse way upon the opposite side. When the proper number of sutures has been introduced they are tied (three ties to the knot) and the ends cut off short. This brings the parts nicely in apposition, and the sutures remain permanently. A row of superficial sutures now closes the skin. I would advise the use of this method of suturing in all cases in which a drainage-tube is unnecessary. When the drainage-tube is used, I do not employ the method, as a weak point is left, anyway; and besides there is some risk of infection of the buried sutures giving rise to stitch-hole abscess. Although I have buried hundreds of sutures in this way, very few have caused irritation or suppuration, and these it was easy to remove. This method of suturing is especially valuable for fat women.

Tuberculosis of the Genitalia and Peritoneum.—The frequency of tuberculosis of the genitalia and peritoneum is one of the questions which is interesting gynecologists at this time. In the list of cases a case of tubercular peritonitis is given, also one of tubercular pyosalpinx with tubercular peritonitis. In addition to these cases, there was one of suppurating ovarian tumor with double pyosalpinx, in which, at all events, tubercles were present, if not the cause of suppuration. In other words, three per cent. of all the cases were tubercular. A systematic study of the specimens macroscopically and microscopically has not been made; therefore I am not able to say that some cases of tubercular trouble have not been over-

looked. In the future I intend to have specimens from every case of operation for diseased and adherent uterine appendages examined, so as to determine definitely the frequency of tuberculosis as a cause of pelvic inflammation. If further investigation demonstrates that Kelly's statement is true, as a matter of general experience, that twenty per cent. of such cases are tubercular in their nature, this factor will assume an unexpected importance as a cause of pelvic disease in women. I feel that it is important that the points should be settled definitely at an early day.

The Method of Operating as a Cause of Good or Bad Results.—I wish to say a few words concerning the influence of the method of operating upon the results obtained. In my judgment the results of abdominal surgery have suffered very much from the teaching that rapidity in operating is a *sine qua non* in obtaining success. Abdominal surgery has suffered from too much brilliancy. Careful, systematic, well-planned work will give the best results. Haste is to be deprecated. Broadly speaking, I have found that, when operations have been completed satisfactorily to myself, my patients have recovered, even though the operation has been tedious, difficult, and involving much manipulation. That which is most important in abdominal surgery is that each step of the operation shall be properly done, so that when the last step is completed the patient shall have been put in a condition for recovery to ensue. Impressed with the teaching that it was essential to complete abdominal sections in the smallest possible space of time, in the beginning of my work I made every effort to work on time, but with increasing experience my desire to finish within a specified time has grown steadily less. Undoubtedly there is a general relation between the length of the operation and its danger, but this relation is by no means definite; the danger depends far more upon what is being done in the time than upon the time itself. Exposure and rough handling of the bowels, injudicious use of ether, and permitting the patient to become chilled, are far more serious matters than the prolongation of the operation for ten, fifteen, or even thirty minutes. Every operator of experience must evolve a technique which is adapted to his own limitations. Aside from what has already been said, certain points will be considered which have proven useful in my hands. Bowel adhesions are separated with great care, usually with finger or sponge pressure, occasionally with scissors when extremely tough. The bowels are at once inspected and sutured if necessary. Care in the separation of bowel adhesions will reduce the number of fecal fistulæ to a minimum. In over two hundred sections I have torn into the bowels but once, and that was a case in which the bowel walls were infiltrated with cancer. I believe that a great deal of the intestinal work in abdominal surgery, the anastomoses, resections, etc., represent so much careless and hurried surgery. Ten or fifteen minutes spent in separating the bowel adhesions would have saved the supposedly necessary and brilliant operations. Of course all must recognize that occasionally the walls of the bowels are so degenerated that the

most extreme care in separating adhesions cannot prevent a fistula, but such cases are very rare, and a careful man will have very few of them.

In enucleating adherent masses from the pelvis the essential element of speed and success is to begin at a point of cleavage and to work systematically from that point until the mass is enucleated. Usually it is best to begin at the side of the uterus and to work downward and outward, so as to get under the mass and separate the deepest adhesions first. In cases requiring much manipulation it is wise to pack sponges so as to shut off the bowels from the field of operation, and thus to save them from exposure and also from contact with the fingers in their manipulations. This procedure will greatly lessen shock in difficult, tedious operations. Hemorrhage usually can be disregarded until the pedicle is reached, and then controlled by the pedicle ligature; only exceptionally is it necessary to place additional ligatures. The Trendelenburg posture is of service in many cases. When the pelvis is filled up with agglutinated viscera, it is oftentimes difficult to distinguish tumor, pus-tube, or bowel, the one from the other. In such cases vision comes to the assistance of touch. In general I find it easier and better to make the enucleation by touch alone. This doubtless is owing to long training in this method, as it seems rational to believe that vision would be of assistance in such cases. The use of the Trendelenburg posture is also of service when it becomes necessary to search for bleeding points, and in keeping the bowels out of the pelvis when using sutures in the pelvic cavity, as in hysterectomy.

Irrigation and drainage are sheet anchors of safety whenever the pelvis has been soiled by supposedly septic fluids. These procedures, properly employed, never do any harm, and are the means of saving many lives. I never hesitate to sponge the pelvis perfectly dry, unless, indeed, the operation has been very prolonged and the patient much shocked. If it is rational to deprive a patient of water for forty-eight hours after an operation in order to produce systemic thirst, and thus to promote the absorption of fluid from the peritoneal cavity, surely it is irrational to leave that cavity full of water. If the peritoneal cavity is left clean and free from fluid, it has been left as nearly as possible in its normal condition. Adherence to the foregoing principles and the observation of the strictest rules of anti-sepsis have enabled me to reduce the mortality in cases of cœliotomy, during the past two years, to five per cent., although dealing constantly with the gravest cases.

Appended is a table of operations which has been prepared by the assistant surgeon of the hospital, Dr. H. E. Applebach.

Table of Operations.

No.	Date.	Age.	M., S., W.	Par.	Mis.	Condition.	Disease.	Operation.	Time (in minutes).	Drain.	Course.	Temp.	Union.	Hospital or private.	Result.	Discharged.
1	Mrs. K., Oct. 19, 1891.	36 W.	0	0	0	Very bad; chronic bronchitis	Fibro-cyst of uterus.....	Hysterectomy	120	None.	Stump clipped off on 11th day	A.	P. except about pedicle.	H.	R.	Dec. 14, 1891.
2	Mrs. U., Oct. 22, 1891.	28 M.	1	...	1	Poor.....	Suppurating ovarian intraligamentous cyst.	Exploratory section; operation abandoned because the diagnosis of pregnancy was adopted.	30	Yes...	Peritonitis	F.	.....	H.	D.	.....
3	Miss N., Nov. 5, 1891.	30 S.	0	0	0	Fair.....	Ovarian cyst on left side; uterine myoma.	Removal of both uterine appendages.	35	None.	Uninterrupted.	A.	P.	H.	R.	Nov. 20, 1891.
4	Mrs. B., Nov. 9, 1891.	22 M.	1	1	1	Fair.....	Pyosalpinx and intraperitoneal abscess.	Removal of both uterine appendages.	40	3 days.	Uninterrupted.	F.	P.	H.	R.	Dec. 7, 1891.
5	Mrs. McG., Dec. 3, 1891.	... M.	0	0	0	Fair.....	Uterine myoma.....	Removal of both uterine appendages.	35	None.	Uninterrupted.	A.	P.	H.	R.	Jan. 1, 1892.
6	Mrs. A., Dec. 6, 1891.	32 M.	...	...	...	Fair.....	Femoral hernia.....	Radical operation.....	25	None.	Uninterrupted.	A.	P.	H.	R.	Jan. 27, 1892.
7	Mrs. H., Dec. 19, 1891.	40 M.	0	0	0	Good.....	Double pyosalpinx.....	Removal of both uterine appendages.	25	1 day.	Good convalescence	A.	P.	H.	R.	Jan. 20, 1892.
8	Mrs. S., Jan. 21, 1892.	48 M.	0	0	0	Poor.....	Carcinoma peritonei.....	Exploratory abdominal section.	25	None.	.....	F.	P.	H.	R.	Feb. 17, 1892.
9	Mrs. V., Jan. 29, 1892.	30 M.	3	0	0	Fair.....	Hæmatoma of right ovary; left cirrhotic.	Removal of both uterine appendages.	35	None.	Suppression of urine.	F.	P.	H.	R.	Feb. 20, 1892.
10	Mrs. H., Feb. 2, 1892.	26 M.	0	0	0	Poor.....	Suppurating right intraligamentous ovarian cyst; left hydro-salpinx.	Removal of both uterine appendages; ovarian cyst held one quart of pus.	60	9 days.	Slow convalescence	F.	.....	H.	R.	Mar. 10, 1892.
11	Miss W., Feb. 4, 1892.	22 S.	0	0	0	Fair.....	Cystic right ovary; salpingitis; menorrhagia	Removal of right uterine appendage; left appendage previously removed for same trouble.	20	None.	Good.....	A.	P.	H.	R.	Feb. 24, 1892.

12	Mrs. S., Feb. 15, 1892.	27	M.	1	0	Poor.....	Endometritis fungosa; cystic ovaries; salpingitis; uncontrollable hemorrhages.	Curetting and removal of both uterine appendages.	40	1	Good.....	A.	P.	H.	R.	Mar. 6, 1892.
13	Mrs. I., Feb. 17, 1892.	40	M.	0	0	Anæmic ...	Fibroma uteri.....	Exploratory abdominal section.	25	None.	Double ether pneumonia. Uncomplicated.	F.	P.	H.	R.	April 1, 1892.
14	Mrs. A., Feb. 23, 1892.	30	M.	0	0	Fair.....	Left pyosalpinx and suppurating intraligamentous ovarian cyst.	Removal of left tube and cyst.	150	3	days.	F.	P.	H.	R.	Mar. 6, 1892.
15	Mrs. G., Feb. 25, 1892.	35	M.	5	6	Poor.....	Double pyosalpinx.....	Removal of both uterine appendages.	50	3	days.	F.	Suppurating wound.	H.	R.	Mar. 25, 1892.
16	Mrs. R., Mar. 7, 1892.	42	M.	.....	.....	Poor.....	Right ovarian cyst containing one gallon of fluid.	Removal of both uterine appendages.	40	None.	Uninterrupted.	A.	Stitch-hole abscess.	H.	R.	April 7, 1892.
17	Mrs. A., Apr. 4, 1892.	30	M.	0	0	Fair.....	Right pyosalpinx.....	Removal of right tube.....	60	2	days.	A.	P.	H.	R.	May 3, 1892.
18	Miss G., Apr. 9, 1892.	21	S.	1	0	Good.....	Double ovaritis; salpingitis with extensive adhesions.	Removal of both uterine appendages.	35	2	days.	A.	P.	H.	R.	May 17, 1892.
19	Mrs. T., May 5, 1892.	22	M.	1	0	Good.....	Right ovarian tumor; left cystic degenerated ovary and adherent tube.	Removal of tumor and both uterine appendages.	40	1	day.	A.	P.	H.	R.	June 2, 1892.
20	Mrs. O., May 16, 1892.	20	M.	2	0	Fair.....	Right ovarian cyst; left degenerated ovary.	Removal of tumor and both uterine appendages.	30	None.	Uncomplicated.	A.	P.	H.	R.	June 12, 1892.
21	Miss M., May 19, 1892.	24	S.	0	0	Very bad...	Suppurating ovarian tumor; double pyosalpinx.	Removal of tumor and both uterine appendages.	75	Yes...	Patient died from exhaust-tion; no signs of signs of peritonitis except vomiting.	F.	.....	H.	D.	.....
22	Mrs. T., May 26, 1892.	29	M.	0	0	Fair.....	Ovaritis.....	Removal of left uterine appendages.	25	None.	Uncomplicated.	A.	P.	H.	R.	June 26, 1892.
23	Mrs. G., June 16, 1892.	36	M.	5	6	Poor.....	Ventral hernia.....	Herniotomy.....	35	None.	Uncomplicated.	A.	P.	H.	R.	July 12, 1892.

No.	Date.	Age.	M., S., W.	Par.	Mis.	Condition.	Disease.	Operation.	Time (in minutes).	Drain.	Course.	Temp.	Union.	Hospital or private.	Result.	Discharged.
24	Mrs. C., June 20, 1892.	32	M.	0	1	Anæmic.....	Chronic salpingitis with marked adhesions; ovaritis.	Removal of both uterine appendages.	40	None.	Uncomplimented.	A.	P.	H.	R.	July 18, 1892.
25	Mrs. N., June 25, 1892.	40	M.	2	0	Poor.....	Chronic ovaritis; salpingitis; dense adhesions; retroflexion.	Removal of both uterine appendages; hysterorrhaphy.	45	2 days.	Uninterrupted.	A.	P.	H.	R.	July 27, 1892.
26	Mrs. T., June 25, 1892.	26	M.	3	0	Fair.....	Ruptured left tubal pregnancy.	Removal of both uterine appendages.	35	None.	Uncomplimented.	A.	P.	H.	R.	July 22, 1892.
27	Miss W., July 4, 1892.	30	S.	0	0	Fair.....	Retroflexion; chronic salpingitis; dense adhesions.	Removal of left uterine appendage; hysterorrhaphy.	35	1 day.	Uncomplimented.	A.	P.	H.	R.	Aug. 8, 1892.
28	Mrs. B., July 4, 1892.	40	M.	4	6	Poor.....	Double hydrosalpinx with small ovarian cyst.	Removal of both uterine appendages.	40	5 days.	Uncomplimented.	A.	P.	H.	R.	July 30, 1892.
29	Mrs. B., July 9, 1892.	40	W.	4	0	Worn.....	Large, soft fibroid.....	Abdominal section; hysterectomy.	75	None.	Slow convalescence.	A.	Sloughing from stump.	H.	R.	Aug. 17, 1892.
30	Miss S., July 13, 1892.	25	S.	0	0	Bad.....	Tubercular peritonitis; large effusion.	Abdominal section and evacuation of fluid.	30	None.	Slow convalescence.	F.	P.	H.	R.	Aug. 19, 1892.
31	Mrs. L., July 20, 1892.	52	M.	Nul-lipa-ral.	0	Fair.....	Left femoral hernia; sacculatation of sac, forming cyst.	Herniotomy; removal of sac and cyst; radical operation.	60	None.	Uncomplimented.	A.	P.	H.	R.	Aug. 6, 1892.
32	Mrs. T., July 25, 1892.	30	M.	3	0	Fair.....	Chronic ovaritis and salpingitis; dense adhesions.	Removal of both uterus and appendages.	40	None.	Uncomplimented.	A.	P.	H.	R.	Aug. 3, 1892.
33	Miss H., July 26, 1892.	18	S.	0	0	Good.....	Catarrhal appendicitis...	Abdominal section; vermiform appendix removed.	35	None.	Uncomplimented.	F. 1st day.	P.	H.	R.	Aug. 23, 1892.
34	Miss M., Aug. 1, 1892.	20	S.	0	0	Fair.....	Right ovarian cyst; double salpingitis with adhesions; hysterolepsy.	Removal of both uterine appendages.	35	1 day.	Uncomplimented.	A.	P.	H.	R.	Sept. 30, 1892.

No.	Name	Date	M.	F.	M.	W.	Age	Condition	Disease	Operation	Days	Result	Remarks	Discharge	Date
35	Mrs. O.	Sept. 7, 1892.	20	0	1	0	1	Poor	Large hemorrhage in left horn; bifid pregnant uterus.	Exploratory section; hemorrhage supposed to be in peritoneal cavity.	30	None.	Abortion following operation.	H.	Sept. 29, 1892.
36	Miss T.	Sept. 13, 1892.	19	0	0	0	0	Worn; has been in bed 7 weeks.	Double salpingitis; left ovarian cyst suppurating.	Removal of both uterine appendages.	50	14 days.	Slow convalescence.	H.	Oct. 17, 1892.
37	Mrs. D.	Sept. 14, 1892.	42	M.	8	3	3	Fair	Tumor of right kidney, malignant.	Exploratory section	25	None.	Uninterrupted.	H.	Oct. 14, 1892.
38	Mrs. C.	Sept. 28, 1892.	26	M.	0	0	0	Good	Pregnancy; flat pelvis.	Elective Cesarean section	60	None.	Uninterrupted.	H.	Oct. 26, 1892.
39	Miss O.	Oct. 8, 1892.	23	S.	0	0	0	Poor	Double pyosalpinx	Removal of both uterine appendages.	35	3 days.	Wound sloughed.	H.	Nov. 30, 1892.
40	Mrs. W.	Oct. 6, 1892.	42	M.	4	0	0	Fair	Tubercular peritonitis; double tubercular pyosalpinx.	Removal of both uterine appendages.	40	1 day.	Slow	H.	Nov. 5, 1892.
41	Miss R.	Oct. 10, 1892.	28	S.	0	0	0	Fair	Double pyosalpinx	Removal of both uterine appendages.	35	1 day.	Uninterrupted.	H.	Nov. 22, 1892.
42	Miss E.	Oct. 21, 1892.	26	S.	0	0	0	Fair	Ventral hernia	Abdominal section, excision of ring; buried silk worm-gut sutures.	45	None.	Uninterrupted.	H.	Nov. 22, 1892.
43	Mrs. B.	Oct. 27, 1892.	33	M.	1	0	0	Fair	Small fibroid, right ovarian cyst; left ovariitis.	Celiotomy, removal of uterine appendages.	35	None.	Uninterrupted.	H.	Nov. 27, 1892.
44	Mrs. H.	Oct. 27, 1892.	24	M.	2	0	0	Fair	Hernia	Herniotomy	40	None.	Uninterrupted.	H.	Nov. 30, 1892.
45	Mrs. Da M.	Nov. 3, 1892.	28	M.	2	0	0	Worn	Chronic ovariitis; left ovary.	Celiotomy, removal of left uterine appendage.	35	None.	Uninterrupted.	H.	Dec. 22, 1892.
46	Mrs. G.	Nov. 10, 1892.	45	M.	2	0	0	Worn	Ovariitis; left ovary lightly adherent.	Celiotomy, removal of uterine appendages.	30	None.	Uninterrupted.	H.	Dec. 7, 1892.
47	Mrs. H.	Nov. 10, 1892.	35	M.	0	0	0	Worn	Double pyosalpinx	Celiotomy, removal of uterine appendages.	45	1 day.	Suppuration in pelvis after first week.	H.	Dec. 18, 1892.
48	Miss Q.	Dec. 6, 1892.	25	S.	0	0	0	Good	Double pyosalpinx; abscess of both ovaries; adhesions.	Celiotomy, removal of both uterine appendages.	35	17 days.	Suppuration in the pelvis.	H.	Feb. 4, 1893.
49	Mrs. G.	Jan. 16, 1893.	28	M.	Multi-para.	0	0	Fair	Malignant disease of left uterine appendage; papillomatous.	Celiotomy, exploratory	35	5 days, graze.	Uninterrupted.	H.	Feb. 14, 1893.

No.	Date.	Age.	M, ♀, W.	Par.	Condition.	Disease.	Operation.	Time (in minutes).	Drain.	Course.	Temp.	Union.	Hospital or Private.	Result.	Discharged.
50	Mrs. H., Jan. 17, 1893.	34 M.	3 0	0	Poor.....	Ovaritis; right ovary...	Cœliotomy, removal of right uterine appendages.	30	None.	Uninterrupted.	A.	P.	H.	R.	Feb. 24, 1893.
51	Mrs. W., Jan. 28, 1893.	33 M.	...	...	Fair.....	Double salpingitis; Oöphoritis, with dense adhesions.	Cœliotomy, removal of both uterine appendages.	30	None.	Uninterrupted.	A.	P.	H.	R.	Mar. 3, 1893.
52	Mrs. K., Jan. 28, 1893.	56 M.	2 0	0	Poor.....	Retroversion.....	Cœliotomy, hysterorrhaphy...	30	None.	Uninterrupted.	A.	P.	H.	R.	Mar. 3, 1893.
53	Mrs. G., Feb. 2, 1893.	51 M.	Multi-para.	0 0	Poor.....	Uterine myoma.....	Cœliotomy, hysterectomy.....	75	None.	Uninterrupted.	A.	P.	H.	R.	Mar. 16, 1893.
54	Mrs. A., Feb. 3, 1893.	56 M.	0 0	0	Very bad..	Large right ovarian cyst.	Cœliotomy, removal of right uterine appendage.	40	None.	Uninterrupted.	A.	P.	H.	R.	Mar. 2, 1893.
55	Mrs. K., Feb. 13, 1893.	28 M.	2 0	0	Fair.....	Retroflexion and adherent uterine appendages; left ovary large.	Cœliotomy, removal of left uterine appendages.	35	None.	Slow. Suppuration in the pelvis.	F.	Suppuration.	H.	R.	Mar. 31, 1893.
56	Mrs. U., Feb. 16, 1893.	23 M.	...	...	Fair.....	Retroflexion; universal pelvic adhesions.	Cœliotomy, removal of left uterine appendage.	40	None.	Uninterrupted.	A.	P.	H.	R.	Mar. 12, 1893.
57	Mrs. W., Feb. 20, 1893.	36 M.	0 0	0	Bad.....	Double pyosalpinx, extreme asthenia.	Cœliotomy, removal of both uterine appendages.	40	Yes.	Very sick.	F.	.....	H.	D.	.....
58	Mrs. M., Feb. 20, 1893.	28 M.	3 0	0	Fair.....	Double ovarian cyst.....	Cœliotomy, removal of both uterine appendages.	40	None.	Uninterrupted.	A.	P.	H.	R.	Mar. 16, 1893.
59	Mrs. M., Mar. 6, 1893.	37 M.	2 0	0	Fair.....	Adherent left tube and ovary.	Cœliotomy, removal of left uterine appendage.	30	None.	Uninterrupted.	F.	Suppuration.	H.	R.	.....
60	Mrs. W., Mar. 9, 1893.	23 M.	2 0	0	Fair.....	Bilat. cystic degeneration of ovaries; menstruation of ovaries; metrorrhagia.	Cœliotomy, removal of uterine appendages; curetting.	35	None.	Uninterrupted.	A.	P.	H.	R.	April 4, 1893.
61	Mrs. M., Mar. 9, 1893.	57 M.	3 0	0	Fair.....	Incarcerated hernia, inguinal.	Herniotomy.....	35	None.	Uninterrupted.	A.	P.	H.	R.	Mar. 22, 1893.
62	Mrs. R., Mar. 13, 1893.	59 M.	7 3	0	Fair.....	Stone in left ureter.....	Cœliotomy (accidental) suprapubic cystotomy, ureterotomy, removal of stone.	40	None.	Insanity.	A.	P.	H.	R.	Mar. 31, 1893.
63	Mrs. G., Mar. 16, 1893.	33 M.	2 1	0	Fair.....	Right ovarian cyst; double salpingitis; universal adhesions.	Cœliotomy, removal of both uterine appendages; hysterorrhaphy.	40	36 hours.	Uninterrupted.	A.	P.	H.	R.	Apr. 24, 1893.

No.	Date.	Age.	M., ♀, W.	Par.	Mis.	Condition.	Disease.	Operation.	Time (in minutes).	Drain.	Course.	Temp.	Union.	Hospital or private.	Result.	Discharged.
81	Mrs. D., May 31, 1893.	43 M.		Multipara.	0	Fair.....	Uterine fibroma.....	Cœliotomy, hysterectomy.....	75	None.	Uninterrupted.	A.	P.	H.	R.	July 7, 1893.
82	Mrs. H., May 31, 1893.	30 S.		0	0	Good.....	Double salpingitis; small left ovarian cyst; pelvic adhesions.	Cœliotomy, removal of uterine appendages.	35	2 days.	Uninterrupted.	F.	P.	H.	R.	July 8, 1893.
83	Mrs. N., June 26, 1893.	40 M.		0	0	Fair.....	Double salpingitis; adventitious cyst.	Cœliotomy, removal of uterine appendages.	35	None.	Uninterrupted.	A.	P.	H.	R.	July 21, 1893.
84	Mrs. F., June 26, 1893.	18 M.		1	0	.....	Left cellulitis, puerperal	Cœliotomy, exploratory.....	30	None.	Uninterrupted.	A.	P.	H.	R.	July 12, 1893.
85	Miss R., June 28, 1893.	20 S.		0	0	Bad.....	Left papillary supporting ovarian cyst.	Cœliotomy, sac irremovable, was sutured to abdominal wall.	60	Glass gauze, 3,	Very sick.	F.	.....	H.	R.	July 16, 1893.
86	Mrs. K., June 29, 1893.	30 M.		2	1	Good.....	Fibroid of uterus, myomatous degeneration.	Cœliotomy, vaginal and abdominal hysterectomy.	60	None.	Uninterrupted.	F.	P.	H.	R.	July 26, 1893.
87	Mrs. C., July 6, 1893.	48 M.		4	3	Fair.....	Malignant disease of cervix uteri.	Cœliotomy, vaginal and abdominal hysterectomy.	60	None.	Uninterrupted.	A.	P.	H.	R.	Aug. 6, 1893.
88	Mrs. R., July 10, 1893.	35 M.		0	0	Fair.....	Double pyosalpinx.....	Cœliotomy, removal of uterine appendages.	35	2 days.	Uninterrupted.	A.	P.	H.	R.	Aug. 26, 1893.
89	Mrs. E., July 23, 1893.	50 M.		0	0	Fair.....	Epithelioma of cervix uteri.	Cœliotomy, vaginal and abdominal hysterectomy.	120	None.	Very sick.	F.	.....	H.	D.	.....
90	Miss M., July 24, 1893.	23 S.		0	0	Fair.....	Chronic cystic ovaries, epilepsy.	Cœliotomy, left uterine appendage removed; hysterorrhaphy.	35	None.	.....	Hyperpexia.	.....	H.	D.	.....
91	Mrs. S., July 31, 1893.	24 M.		1	0	Fair.....	Left, dermoid cyst, with twisted pedicle; small right ovarian cyst.	Cœliotomy, removal of both uterine appendages.	35	1 day.	Uninterrupted.	A.	P.	H.	R.	Sept. 4, 1893.
92	Mrs. S., Aug. 8, 1893.	40 M.		0	0	Bad.....	Right ovarian tumor; solid and cystic double salpingitis; fibroids; universal adhesions.	Cœliotomy, removal of uterine appendages.	40	2 days.	Uninterrupted.	Slight fever.	P.	H.	R.	Sept. 6, 1893.
93	Mrs. S., Aug. 27, 1893.	39 M.		0	0	Fair.....	Fibroids of uterus.....	Cœliotomy, removal of uterine appendages.	30	None.	Uninterrupted.	A.	P.	H.	R.	Oct. 15, 1893.

94	Mrs. W., Aug. 28, 1893.	29	M.	0	0	0	0	0	0	Fair.....	Retroversion; varicocele of the broad ligament.	Coeliotomy, removal of left uterine appendage; hysterorrhaphy.	30	None.	Uninterrupted.	A.	P.	H.	R.	Sept. 14, 1893.
95	Mrs. T., Sept. 8, 1893.	25	M.	0	0	0	0	0	0	Fair.....	Double dermoids of ovaries, bone outside of tumors.	Coeliotomy, removal of both tumors.	45	2 days.	Uninterrupted.	A.	P.	H.	R.	Oct. 16, 1893.
96	Mrs. G., Sept. 18, 1893.	41	M.	1	0	0	0	0	0	Worn.....	Salpingitis and retroflexion; adherent appendages and uterus.	Coeliotomy, removal of uterine appendages; hysterorrhaphy.	35	None.	Suppuration in abdominal wall.	F.	Suppurated.	H.	R.	Oct. 30, 1893.
97	Mrs. M. C., Sept. 18, 1893.	36	M.	3	0	0	0	0	0	Fair.....	Hypertrophic cystic degeneration of left ovary.	Coeliotomy, removal of left uterine appendage.	25	None.	Uninterrupted.	A.	P.	H.	R.	Oct. 12, 1893.
98	Mrs. B., Sept. 27, 1893.	41	M.	4	6	0	0	0	0	Good.....	Post-operative ventral hernia.	Herniotomy.....	45	None.	Uninterrupted.	A.	P.	H.	R.	Oct. 21, 1893.
99	Mrs. T., Oct. 4, 1893.	25	M.	0	0	0	0	0	0	Good.....	Cystoma of left ovary; large hydroids follicle of right ovary.	Coeliotomy, removal of left uterine appendage.	30	None.	Uninterrupted.	A.	P.	H.	R.	Oct. 31, 1893.

CLASSIFICATION OF CASES.

Ovarian cysts	{	single.....	5
		double.....	1
		single, malignant.....	6
		double, malignant.....	1—13
Dermoid cysts	{	single, on left side.....	1
		double.....	1—2
Ovarian cyst complicated by	{	hydrosalpinx.....	2
		pyosalpinx.....	2
		salpingitis and pelvic adhesions.....	6
		pregnancy.....	2
		suppuration.....	1—13
Retroflexion.....			1
Retroflexion complicated by	{	varicocele of broad ligaments.....	1
		double salpingitis and pelvic adhesions.....	6—7
Pyosalpinx	{	single.....	2
		double.....	10
		with abscess of one ovary.....	1
		with abscess of both ovaries.....	2—15
Chronic ovaritis and salpingitis	{	one side.....	4
		both sides.....	6—10
Double salpingitis, oöphoritis, with dense adhesions.....			1
Hæmatoma of right ovary, cirrhosis of left.....			1
Salpingitis, cystic ovaries, endometritis fungosa, metrorrhagia.....			1
Hypertrophic cystic degeneration of ovaries.....			2
Double salpingitis with adventitious cyst.....			1
Perityphlitic abscess.....			1
Stone in left ureter (accidental celiotomy).....			1
Uterine fibroids.....			6
Fibro-cyst of uterus.....			1
Fibro-sarcoma of uterus.....			1
Myxomatous degeneration of uterine fibroid.....			1
Small fibroid, right ovarian cyst, left ovaritis.....			1
Left pelvic cellulitis (puerperal).....			1
Enlarged liver.....			1
Ventral hernia.....			5
Incarcerated inguinal hernia.....			1
Femoral hernia.....			2
Ruptured tubal pregnancy.....			1
Tubercular peritonitis.....			1
Tubercular peritonitis, double pyosalpinx.....			1
Catarrhal appendicitis (recurrent).....			1
Hemorrhage into left horn of pregnant bifid uterus.....			1
Malignant tumor of kidney.....			1
Epithelioma of cervix uteri.....			1
Malignant adenoma of cervix uteri.....			1
Carcinoma peritonei.....			1
Pregnancy, flat pelvis.....			1

CLASSIFICATION OF OPERATIONS.

ONE UTERINE APPENDAGE REMOVED FOR:

Cystic right ovary, menorrhagia.....	1
Right pyosalpinx.....	1
Ovaritis.....	5

CLASSIFICATION OF OPERATIONS—*Continued.*

ONE UTERINE APPENDAGE REMOVED FOR:

Ovarian cyst.....	6
Ovarian cyst, suppurating, complicated by left pyosalpinx.....	1
Retroflexion with adherent appendages.....	3
Hypertrophic cystic degeneration of left ovary.....	1—18

BOTH UTERINE APPENDAGES REMOVED FOR:

Uterine fibro-myoma.....	6
Uterine fibro-myoma complicated by ovarian cyst.....	2— 8
Ovarian cyst.....	3
Ovarian cyst complicated by suppuration in cyst, or pyosalpinx, or salpingitis.....	10
Pyosalpinx and ovarian abscess.....	12
Hæmatoma and cirrhosis of ovaries.....	1
Cystic ovaries, salpingitis, endometritis fungosa, and metrorrhagia.....	1
Chronic ovaritis, salpingitis, and adhesions.....	11
Ruptured tubal pregnancy.....	1
Retroflexion and adherent appendages.....	1
Bilateral cystic degeneration of ovaries.....	1
Dermoid cyst.....	2
	<hr/> 51

MISCELLANEOUS OELIOTOMIES.

Exploratory incisions.....	8
Hysterorrhaphy.....	2
Hysterectomy.....	4
Herniotomy {	
inguinal.....	1
ventral.....	5
femoral.....	2—8
Evacuation of perityphlitic abscess.....	1
Irremovable sac of suppurating malignant ovarian cyst.....	1
Removal of vermiform appendix.....	1
Elective Cæsarean section.....	1
Evacuation of fluid, tubercular peritonitis.....	1—27

VAGINAL ABDOMINAL HYSTERECTOMIES.

Malignant adenoma of cervix.....	1
Myxomatous degeneration of uterine fibroid.....	1
Epithelioma of cervix.....	1— 3
Total.....	<hr/> 99

DEATHS.

There have been five deaths in this series of ninety-nine cases. Numbers 2, 21, 57, 89, and 90 have died; or a mortality of five per cent.

There have been eight cases operated on between the beginning of this list and the last death, and there have been four cases in the current hospital year without any deaths; making a total of one hundred and eleven cases, with five deaths.

Number 2 had a suppurating ovarian cyst, which filled up the pelvis and was universally adherent. No landmarks could be recognized in the pelvis. The tumor presented somewhat the appearance of the pregnant uterus, and, not being able to exclude this supposition, the operation unfortunately was abandoned. Septic peritonitis resulted from leakage from the tumor, causing the death of the patient on the second day.

Number 21 had a suppurating ovarian tumor and double pyosalpinx, with tuberculosis of the pelvic organs and of the lungs. She had been confined to her bed for some weeks, and had been emaciating for some months prior to the operation, so that she was

in extremely bad condition at the time of the operation, which was undertaken with the prognosis of a possible recovery by operation, but with certain death at an early day without it. She died on the fourth day, and no autopsy could be obtained. She had had some vomiting, and also some fever, but none of the local signs of a peritonitis. Her death was due probably to shock and asthenia, but, as no post-mortem was made, peritonitis could not be excluded positively, although none of its local evidences were present.

Number 57 had a double pyosalpinx, was a confirmed invalid, and had been confined to her bed for weeks before her operation. She died within twenty-four hours after the operation, without other symptoms than a gradually failing pulse. She had no shock in the sense of a depressed temperature when she went to bed; hence it is difficult to name the cause of her death, which, however, was probably due to shock.

Number 89 died on the sixth day after a vagino-abdominal hysterectomy for epithelioma of the cervix. This operation was a very difficult and tedious one, lasting two hours. It was accompanied also by considerable hemorrhage. Shock was very profound, and the patient never reacted fully. She was never entirely rational after the operation, although she could be roused and could answer questions intelligently. There were no symptoms except those of prostration during the six days, except slight nausea on the second day and a rise of temperature to 101° F. on the third day. The pulse-rate varied from 100 to 150. The autopsy showed the peritoneum to be entirely healthy; also that the kidneys were healthy, and the ureters pervious. Sepsis and peritonitis can thus be excluded. The autopsy was not a complete one, so that disease of the brain cannot be excluded positively, but there is every reason to accept a diagnosis of a death from shock and asthenia.

Number 90 was the subject of epilepsy, and had a retroverted uterus, with a tender cystic left ovary. The left ovary and tube were removed, and a hysterorrhaphy was done. The patient's temperature remained below 100° until the evening of the following day, with a pulse of less than 80. She complained, however, of great pain, and was extremely restless. This restlessness increased rather than diminished. During the following night the temperature became 102° , with a pulse of 80. The following morning (second day) the pulse was 100, and the temperature 102° . This was Wednesday, August 26, the hottest day of the summer. I was summoned to see the patient at eleven o'clock, and found her with a temperature of $105\frac{1}{2}^{\circ}$, evidently alarmingly ill. She died within two hours, in hyperpyrexia, in spite of assiduous efforts at refrigeration. The autopsy revealed a healthy peritoneum and no evidence of sepsis. A diagnosis of heat-stroke was made by the pathologist, and concurred in by myself.

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