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CASE OF DOUBLE OVARIAN DROPSY—BOTH OVARIES SUCCESSFULLY REMOVED BY THE LARGE PERITONEAL SECTION.

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[We copy the following report of this exceedingly interesting case from the last number of the American Journal of Medical Sciences. The case, in itself remarkable, acquires to us the more importance, from being the first instance in which this operation, by the large peritoneal section, has been successfully performed in New England. We quote the case in full, to the exclusion of other matter, and not exactly in accordance with our established rule in such cases, believing that it would thus be more acceptable to the surgical reader, and that a complete report of it should be placed on record in our Journal. In its perusal three things are prominently noticed:—the exact diagnosis—the *completeness* of the operation—and the philosophical and satisfactory explanation of the conditions and symptoms observed in the course of the disease; to which may be added the marked modesty of the author in the recital. We recommend it as a model for reports in medical and surgical practice.—Ed.]

Miss Sarah N. G——, of West Claremont, N. H., æt. 25, black hair and eyes, delicate development, but not fragile—a young lady of intellect and refinement—first consulted me on the 6th of Sept., 1850. She had first discovered a tumor extending half way from the symphysis pubis to the umbilicus, and precisely on the middle line, in June, 1849, or about fifteen months ago. It was then, perhaps, three inches in diameter, very movable, and apparently of a spherical figure. Its size became doubled, she thinks, within six months afterwards, and has been still more rapidly increasing since. It has never been painful at all, nor tender on pressure up to the present time. A disagreeable sensation of *tension* alone has been felt, and this only for the last few months. She has never, at any former period, had any pain in either iliac or inguinal region; nor any other symptom of inflammation, or even irritation, of either ovary. Menstruation has been regular to the present time; and there has never been any leucorrhœal discharge. Nor has there been any derangement of the stomach or bowels till since she commenced the use of drastic cathartics; and her present emaciation,

weakness, pallor and loss of appetite, she attributes mainly to them. During the last few months, she has, in addition to hydragogue cathartics, made trial of diuretics and iodine ointment—but with no perceptible benefit. Her appetite is still poor, though all medication has been suspended for two or three weeks. She is not yet troubled with either dyspnoea or nausea from the pressure of the tumor.

As several distinguished physicians had been either doubtful or incorrect in their diagnosis of Miss G.'s case, I shall be the more explicit in regard to the examination made to establish it—the general condition of the patient having been already indicated.

The *abdomen* is very prominent; its circumference being thirty-nine inches above the hips, and forty-one around and across them. The enlargement is regular, except that the left side, from the spine to the linea alba, measures three quarters of an inch more than the right. It rises to within two inches of the ensiform cartilage, and fluctuation is detectable in every part of it. The abdominal walls are very tense, and not yet at all pendulous. The skin even is so tense as not to allow of any motion. No tympanic sound is elicited by percussion, except over the epigastrium; and whether the patient is sitting, standing or lying in varied positions, no apparent effect is produced on the fluctuation, the sound on percussion, nor the position of the enlargement itself.

A tumor is felt, *per vaginam*, in the region of the left ovary, around which (and also obscurely *within* it) fluctuation is apparent on percussing the abdomen externally; though, as a whole, it appears lobulated and quite resistant. The finger can reach only a portion of it, perhaps as large as a hen's egg.

This tumor is also felt *per rectum*, and most extensively to the left of the uterus; the latter being slightly retroverted, but not inclined to either side. This aspect of the tumor seemed entirely solid, and not manifesting the least fluctuation. It can be slightly elevated on the tip of the finger; but whether from the yielding of the attachments, or of its walls, I cannot determine.

Diagnosis.—An ovarian tumor, probably originating from the left side; the fluid being contained in a large sac constituting the greater part of the tumor; and the more solid portion, felt *per vaginam*, being a mass of smaller sacs connected with the latter, and containing each so small a quantity of fluid as to admit of only an obscure fluctuation.

Advised that the patient be tapped without delay, with a view to ascertain whether the fluid was principally contained in a single large sac, as appeared to be the case—how large the solid part of the tumor might be; whether the diseased mass had become adherent to the surrounding parts and organs; and all other facts bearing on the question of removal of the mass by the large peritoneal section—this operation having been previously suggested and explained to the patient before she consulted me.

Sept. 11th (five days afterwards), Dr. E. E. Phelps, of Windsor, Vt., tapped the patient, and obtained 26 lbs. of a thick fluid of a brown color (specific gravity 1026), with flakes floating in it so large as to obstruct a canula of the common size. An apparently solid tumor at once became

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prominent on the left side of the abdomen, seven and a half inches in its vertical dimensions, and four inches in its transverse at its upper part, by five inches at the lower. It seemed perfectly movable, and non-adherent to any contiguous part.

The patient was at once relieved. She came down stairs the morning after. Her appetite at once returned; the kidneys began immediately to act copiously, and so continued for a week. Still, Dr. Phelps found, on the 15th, that the sac was rapidly filling again.

I again saw the patient on the 17th, six days after the tapping, with Dr. S. G. Jarvis, her attending physician, and Dr. Phelps. She had sat up all day as well as yesterday, and appeared much better in countenance than when I saw her on the 6th; but a large quantity of fluid had accumulated since the 11th.

Examination.—Abdomen quite lax, and fluctuation everywhere apparent, except in the left lumbar region, and thence forwards to a line from the seventh left costal cartilage to the anterior superior spinous process of the ilium. No tympanitic sound on percussion, except over the upper part of the ascending and right half of the transverse colon; though, while the patient sits erect, it extends across the epigastrium. Circumference to-day, above the hips, while erect, is thirty-three inches; around the hips, thirty-five inches. Distance across, from one anterior superior spinous process to the other, thirteen and a half inches.

The solid tumor, so prominent immediately after the tapping, is far less so now. It is found to extend from the level of the left crista illi to the cartilage of the seventh rib; is not movable to any considerable extent; is not tender nor even sensitive to pressure, and presents a distinct elevation on its anterior face half as large as a hen's egg, and about four inches from the top; probably a distinct sac full of fluid. Its position is nearly vertical, and it can be traced downwards about seven inches. Its other dimensions appear the same as those given by Dr. Phelps on the 11th; but the accumulation of fluid since then renders it more difficult to determine its size with accuracy.

The skin of the abdomen is now movable in every part, and there is no tenderness on pressure anywhere, except at two points, each about one and a half inches square, viz., just below the cartilage of the eighth rib on the right side, and at the anterior extremity of the tenth rib on the left side. This did not appear to be peritoneal tenderness. She has had no pain since the tapping; no unpleasant sensation, indeed, except a tired feeling of the abdominal muscles, which, during the past year, she has oftentimes experienced. I, therefore, discovered no proofs of adhesion of either the solid portion or the sac, now perhaps half filled with fluid again. It was, however, *possible* that the latter might be extensively adherent, either to the omentum majus, or the peritoneum of the abdominal walls, or both. The mobility of the solid portion, after tapping, satisfied Dr. Phelps, at the time, that this part of the diseased mass could not be adherent. And no sign of peritoneal inflammation has hitherto existed to lead to the suspicion of adhesion from that cause, either prior, or subsequent, to the tapping. And previous examinations even, whether external or internal, have never produced pain at the time or afterwards.

Per vaginam, the finger feels to-day merely a tenseness in the region of the left ovary, but nothing of the solid tumor detected on the first examination, eleven days ago. Nor can any fluctuation be detected in this direction from the vagina to-day.

Per rectum, also, I can detect only the unyielding band in the position of the left ovary; no fluctuation or tumor. The uterus is a little retroverted, but lies on the middle line. It is not at all tender. It can be displaced a little to the left, but not towards the right side.

The uterine sound entered the uterus two and a quarter inches, following the middle line also; but the uterus could not be moved perceptibly upon it. It produced no pain.

On passing a sound into the bladder, it also followed the normal direction, and could be passed freely in all directions within that organ.

All the changes which could be made in the position of the enlargement produced no appreciable effect upon the position either of the uterus or the bladder, while they were respectively sounded.

All the preceding facts were thought to be consistent with the diagnosis given on the 6th; the evacuation of the fluid by paracentesis having allowed the solid portion to rise higher in and above the pelvis, into the lower part of which it had before been pressed, by the greater weight in the large sac attached to it—this elevation of the tumor also producing the tense state of the left broad ligament just alluded to.

I therefore told Miss G. that, so far as positive signs were concerned, her case appeared at least as favorable for the operation of extirpation by the large section, as several of the cases reported in which it had been performed; that I did not assume that it was ever justifiable, but, if so, it would be so in the present case, so far as I could discover any indications to the contrary; that I did not, however, *advise* the operation, since it might prove fatal, even though the disease was successfully removed; and on the other hand this might, on opening the abdomen, be found impossible, in which case she could, of course, derive no advantage from the operation, and might even lose her life in consequence of it.

She replied that she had resolved to have the operation performed, if there was any possibility of its succeeding; certainly, if there was one chance in eight for her to live through and recover from it, independently of the chance of removing the disease; that she well knew all the risk, and wished to incur it. She had before said she had no desire to live as at present, and had calmly contemplated all the consequences of her decision.

At her solicitation, with the request of Drs. Phelps and Jarvis, I therefore engaged to perform the operation on the Saturday following. She seemed much relieved by my decision, and replied, "I shall long to have the day arrive."

Thursday evening, Sept. 19th.—To take a free dose of castor oil, and only fluid food afterwards. To keep quiet also, especially on Saturday—the operation to be performed at 3½ P. M. of that day.

Saturday, 21st. The fluid has so far accumulated, during the past four days, that it is now difficult to find the solid part of the diseased

mass at all. The tenderness at the two points specified on the 17th is now somewhat increased, and I discover a distinct "friction feeling" not before existing over them—mentioned at the time as a proof that adhesions of the mass had formed since my last examination.

Operation, 3½ P. M.—The patient was placed upon a table, with the feet towards a window, and resting on a chair, the head and shoulders being elevated upon pillows placed upon an inclined plane, and supported by an assistant. She had previously evacuated the bladder: the pubes had been shaven so far as would be implicated by the incision; a sheet applied around the pelvis, and a line drawn with a lead pencil, to indicate the precise position of the incision, from a point two inches above the umbilicus, and one half inch to the left of the linea alba, down to the symphysis pubis. The temperature of the room had been raised to 80° Fahr., and was to be kept at this point for the first few days—the air also to be kept damp during the operation by the constant evaporation of water.

Drs. Jarvis and Tolles, of Claremont; Drs. Phelps and Clark, of Windsor; Dr. Comings, of Plainfield, and Messrs. D. S. Conant and A. T. Fitch (two of my medical pupils), assisted me.

Anæsthesia was induced, in about six minutes, by a mixture of pure sulph. ether (twelve parts) and chloroform (one part), and the operation was commenced at ten minutes before 4 o'clock.

On dividing the skin and superficial fascia upon the line marked as above—it being nine inches in length—I found, contrary to my expectation, that the latter, together with the adipose deposit in it, was at least one and a quarter inch thick, for an extent of four inches below the umbilicus; which caused no little subsequent difficulty in closing the wound. Next, the abdominal aponeurosis was cautiously divided for half an inch, at a point three inches below the umbilicus, with the intention of falling directly upon the linea alba, and between the recti muscles. But the deviation of the linea alba to the left side being still greater than I had calculated, my incision was found to have penetrated the sheath of one of the recti. By the introduction of a probe, it was at once ascertained to be the *right* rectus which I had reached, and just at its inner edge; and thus the precise position of the linea alba was indicated.

After all external hemorrhage had ceased (not over ⅔ j.), I carefully divided the linea alba for about six inches. In doing this, a small artery in the edge of the left rectus was severed; but the contact of the air at once stopped the bleeding. I now expected to see the fascia transversalis and peritoneum; since, in this operation, they are generally found very much thickened. But in this I was disappointed. On dividing, with the greatest care, the very thin aponeurosis, I brought into view a dense white membrane, and of too smooth an aspect to be the external surface either of the fascia transversalis or the peritoneum; and which I concluded, after a brief examination, must be the sac itself. But, as some doubt was expressed as to the correctness of this opinion, I endeavored by careful dissection to detach from it either the fascia or the peritoneum, until it became certain that the membrane in sight was

the sac itself. In settling this question, however, at least ten minutes were lost. Moreover, a vein in the wall of the sac was divided, which afforded almost all of the blood lost during the operation, and which amounted in all to not more than $\frac{3}{4}$ x. The hemorrhage was arrested by applying a ligature to the vein, till the sac should be removed. In detaching the vein for this purpose, the sac was divided completely through, and a small quantity of the characteristic contents escaped.

And at this conjuncture, still another cause of delay occurred. The patient, hitherto perfectly quiescent, now began to make violent efforts to vomit; and supposing the anæsthetic might possibly produce this effect, it was at once withdrawn, and not afterwards administered during the operation. Still the retching continued; and during this time I could only sustain the abdomen with both hands, and keep the internal organs from protruding as effectually as I might. About fifteen minutes were lost in this way. During these violent efforts, the incision gaped so as to assume an elliptical form; the sac filling up the ellipse, except when a loop of intestine or a portion of omentum made its appearance. These were, however, always replaced with ease, during all stages of the operation.

When the retching had ceased, I introduced the hand to ascertain if the sac were anywhere adherent—intending, if it were so extensively attached as to render it improper to remove it, to adopt the method first suggested, I think, by Prof. Récamier, viz., to evacuate the contents through a small opening, and attempt to produce adhesion of its anterior surface to the abdominal walls. But to my great satisfaction I found the mass was nowhere adherent except at the points mentioned before I commenced the operation, over which the “friction feeling” was so distinct. Here the adhesions covered, on each side, a surface about two inches square.

The contents of the sac were next evacuated, through a large incision, into a bucket, and amounted to twenty-two pounds of fluid, like that obtained by Dr. Phelps ten days before. The incision through the abdominal aponeurosis was now enlarged to correspond with that in the skin; and the sac being now collapsed, the adhesions were easily broken up by the fingers; and before removing the hand, I left every part free down to the pedicle, which was very broad and firm, and attached to the left side of the uterus, as was expected.

The more solid part of the mass is now seen to be an aggregation of smaller sacs of various sizes, from that of a pea upwards. The two largest were punctured with a trocar, and at least a pound of fluid escaped. The whole mass was then lifted out of the abdominal cavity, and held by assistants, while I passed a double ligature of six threads of saddler's silk, “not twisted, but well waxed,” as Dr. Atlee advises; and cutting out the needle, tied each portion around one half of the pedicle. The latter was six inches wide and half an inch thick; except one inch in the middle, where the two layers of peritoneum in the broad ligament appeared in their natural relation. On the outer side of this thin portion were an artery (nearly as large as the radial) and a vein, and a quantity of areolar tissue; on the inside, the Fallopian tube,

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and a still larger artery and vein, with a quantity of areolar tissue supporting them. The pedicle was divided obliquely upwards, and to both the *right and left*, from a point a quarter of an inch above where the ligature passed through, to within a quarter of an inch of the diseased mass.

On making a careful examination of all the parts and organs brought into view, preparatory to closing the incision, I discovered that a sac of the size of a pullet's egg was developed in the *right* ovary also; and that the whole organ was otherwise diseased. Accordingly, a double ligature (of two threads only) was passed through the broad ligament, and the remaining ovary was likewise removed.

The bladder was completely collapsed; the uterus perfectly smooth and healthy. The intestines were also in every part collapsed, and, therefore, now gave not the least trouble from protrusion. The parts exposed to the action of the air assumed a somewhat dusky hue; especially the uterus and bladder, which were of necessity longest exposed. The omentum was now carefully replaced; the operation, inclusive of the delays above specified, having occupied fifty-five minutes.

Closing the Incision.—The edges were accurately brought together, and retained thus, by five long and stout needles, equidistant from each other, and consequently one inch and a half apart, and which punctured all the layers but the peritoneum. The insertion of the needles was a difficult matter, for reasons hereafter to be specified. The four ligatures were brought out through the incision at the nearest point, this being between the lowest two needles. No tent of any kind was used. The skin would not meet for some inches in the middle portion of the incision, on account of the pressure of the parts underneath from the needles; and was drawn together by points of suture an inch apart, penetrating it alone. Ligatures were applied around the needles in the usual way.

The incision, being thus brought together, formed a prominent ridge of the same length, and four inches wide; there being on each side of it a deep depression, from the empty state of the alimentary canal, and the collapsed state of the hitherto distended abdominal walls. Strips of adhesive plaster were applied across this between the needles; and a compress dipped in warm water, over which a dry one and a piece of oiled silk were placed, completed the dressing; and the patient was placed in bed at twenty-five minutes before six.

She is now (fifteen minutes before 6) much exhausted, having suffered much from the introduction of the needles, as well as from the operation. Is deadly pale, and still very sick at the stomach. Pulse 70, very weak; respiration 18. Warm blankets are applied, and a little brandy and water are given, and a few drops of aq. ammoniæ, at intervals. On inquiring whether she still hoped to rally and do well, she replied, "I have not a doubt of it, sir."

She was now attended constantly, for the following nine days, by three of my medical pupils, in turn: viz., Messrs. Conant, Fitch, and T. W. Wadsworth, who, during that time, kept an hourly record of her condition. From this record the account which follows below. The

temperature of the room is to be kept at 78° to 80°; she is to take the aq. ammoniæ, &c., till re-action is established; and forty drops of Mc Munn's elixir of opium, to be then given. Nothing but bread-water for diet; acidulated drinks; not to speak aloud, nor to move without assistance; catheterism every six hours; and the wet compress to be renewed every three hours, or before it becomes dry.

8 o'clock, P. M. (two hours after operation). Pulse 112, soft. (N. B.—Her natural pulse is 90.) Respiration 21; countenance pale and cold. A little chilly at intervals. Is very faint, a common thing in her best health, when excited. Nausea still continues; has not vomited.

10 o'clock.—Has been gradually rallying the past two hours. At 9, took a little wine- whey. Pulse now 112, fuller; respiration 26. Has slept a few minutes.

11 o'clock.—Re-action is now complete. Pulse 112, and full; respiration 24. Sickness and faintness nearly gone. Drew $\frac{3}{4}$ iij. of clear, concentrated urine. She has "not the least doubt" she will recover. The sickness and faintness recurred to some extent during the night; and her uneasy sensations were relieved by changing her position about once an hour. She slept very quietly about three hours in all. Vomited once; $\frac{3}{4}$ iv. healthy urine drawn at 5, A. M.

Sunday, 6, A. M.—Patient wakes up refreshed, saying she has "rested better than on some nights before the operation." Pulse 120, full; respiration 24. (At 5 in the afternoon of to-day, the pulse fell to 105.) Dr. Jarvis took charge of the patient at 10, A. M., and I did not again see her until Tuesday P. M. She has no marked thirst nor heat of surface to-day. Less frequent changes of position are necessary. Occasional faintness, and slight pain in the course of the incision. Dr. Jarvis drew off $\frac{3}{4}$ iv. urine at noon, and $\frac{3}{4}$ iv. more at 7 in the evening.

Monday, 6, A. M.—Was somewhat cool at 3 this morning, but no chill. Urine $\frac{3}{4}$ iij. at 2, A. M. Has had a comfortable night; but has slept only between two and three hours. Pulse now 112; respiration 22. During the day, the former ranged between 109 and 114. At 9, A. M., $\frac{3}{4}$ viij. of urine; $\frac{3}{4}$ vj. more at 5, P. M.; and $\frac{3}{4}$ viij. also at midnight. Tongue is moist, with a very thin white coat. Had a severe deep-seated pain in right iliac region at 9, A. M.; at 12, a similar pain near the umbilicus; both relieved on change of position. Has a slight dull headache most of the day; and darting abdominal pains often recur. But she slept an hour before noon; has no thirst; no swelling or tenderness of abdomen; skin is moist and natural; and, on the whole, has had not an uncomfortable day.

Tuesday, 6, A. M.—Wakes as from a good night's rest, having slept three and a half hours in all. The pulse fell to 93 at 5 this morning. Is now 104, rather weak. Urine $\frac{3}{4}$ viij. drawn at 8, A. M. and at 2, P. M.; also at 10, P. M. Less pain in the bowels than yesterday. Patient slept half an hour at noon; feels stronger; says she "could sit up, if allowed to do so." I saw her this afternoon—seventy hours after the operation. Pulse 112; respiration 23. It is a very warm day, and patient complains of the heat. Dressed the wound anew. Skin already united wherever edges are in perfect contact. Here and there a drop of pus around the

sutures. No tenderness or swelling of abdomen. The catamenia returned this evening, and continued three days. She has had a very comfortable day. Tongue slightly coated, and breath acid. To take an enema this evening.

Wednesday morning.—Patient slept quietly from four and a half to five hours last night. Pulse fell to 86 at 4, A. M.; is now (9, A. M.) 96, full. Urine $\frac{3}{4}$ vij. at 6 this morning. At 11½, A. M. (eighty-five hours after the operation), she passed $\frac{3}{4}$ viij. urine *without aid*, for the first time; and needed no instrumental assistance afterwards—this secretion remaining normal during her recovery. Patient has had no chill yet; “feels better than yesterday”; countenance cheerful and animated, as though nothing unusual had happened. No effect from the enema. Castor oil, 3 ij., to be given at 2, A. M.

Thursday morning.—Patient thinks she slept about five hours last night. “Feels stronger.” Pulse 86; respiration 20. Changed clothing and bed-clothes at 10, A. M., for first time since operation.

I saw the patient at 3 o'clock, P. M. Pulse 92; dressed the incision, and removed two of the five needles. The abdomen is now less concave on the sides of the ridge produced by the needles. Scarcely any suppuration. No tenderness or pain of abdomen.

Friday morning.—Patient did not sleep at all last night, since the bowels have not been relieved by the oil, and a smarting where the needles were removed was felt most of the night. Pulse 94 at 9, A. M.; ranged from 83 to 104 during the day. Head feels pressed still. Skin hotter to-day; less so after an hour's sleep from 2, P. M.

Saturday morning (one week after operation).—Patient took sixty drops of McMunn's elixir at two doses last night, and slept about three hours in all. Pulse 84; respiration 22, at 9, A. M., to-day; having just waked from half an hour's sleep.

I saw the patient at 3, P. M., to-day; changed all the dressings, and removed the three remaining needles. Skin firmly united, except at three points where the apposition had not been perfect. Very little suppuration. Appetite strong. A slight flatulent distension on right side of abdomen. Tongue slightly yellow. To take 3 ij. more of castor oil this evening, and thirty drops of McMunn's elixir.

The record was hereafter made only once in three hours.

Sunday.—Patient slept about four hours in all last night. Is stronger than yesterday, and wishes to begin to help herself. Pulse at 3, P. M., is 90; respiration 22. A large enema secured the free operation of the oil in the evening, and she slept all night “as well as she ever did.”

Monday, 9, A. M.—Pulse 88; respiration 18. Perfectly comfortable in all respects.

Messrs. Conant, Fitch and Wadsworth discontinued their attendance from this time.

[To be concluded next week.]

Population of London.—At the completion of the 19th century it is calculated by Mr. R. T. Popling that, at the present rate of increase—1.515 per cent. per annum—the population of London will be 4,816,062.

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