Case of ovarian tumour complicated by cardiac and renal disease : ovariotomy, death / by J. Knowsley Thornton ; with report of post-mortem, by Alban Doran.

CASE OF OVARIAN TUMOUR

COMPLICATED BY CARDIAC AND RENAL DISEASE—OVARIOTOMY—DEATH.

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WITH REPORT OF POST-MORTEM.

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THE application of Lister's antiseptic method to the performance of ovariotomy is just at present so closely watched both by the friends and the foes of the system that the cause of death is anxiously sought after in every fatal case. The present one demonstrates so perfectly how well the healing processes had progressed in the wounded parts, in spite of the most unfavourable condition of other vital organs and the impure state of the blood itself, that I think it a duty to place the details on record at once. Without such a record the case is only too likely to be classed among the failures of the antiseptic method.

E. S., aged fifty-six, married twenty-one years, but never pregnant, a pallid woman with pinched face, and looking older than her age, came under my care at the Samaritan Hospital in the middle of June, 1878, having been sent to the surgical wards by Dr. Routh.

The abdomen was greatly distended by a large cyst, with evidences of secondary masses growing in its walls. The pelvis was occupied by a large hard mass lying to the right of and behind the uterus, which was pushed over to the left side. The mass moved with the abdominal tumour, but was so wedged in the pelvis it was impossible to say whether it was adherent or not. The uterine cavity measured three and a half inches, and seemed free from the tumour. There was no evidence of abdominal adhesion.

History: Had noticed increase of size during last five years, but it had not been rapid till two years back. In June, 1877, she got into the hands of an advertising quack,

who promised to cure her without operation, and then tapped her, making an incision two inches long for the purpose. Twenty pints of dark fluid were removed, and she was in his hands for six weeks, when he declared her cured. She rapidly refilled, and then sought other advice.

When she came under my care she measured forty-three inches at the umbilical level, and was beginning to suffer with her breathing, &c., from the distension.

Her general condition was most unfavourable for any surgical operation. My colleague, Dr. Champneys, kindly examined her chest for me. The heart was enlarged, and there was a loud double murmur at the base. The arteries were all tortuous and hard, those at the neck especially, the innominate visibly enlarged and pulsating violently; the pulsation in the arteries of the arms was visible in their whole length. The lungs were in a fairly good condition, but there was some crepitation at their bases posteriorly. The kidneys had long been acting badly, and although the ordinary tests gave no evidence of albumen, the urine was scanty and of low specific gravity.

She was distending rapidly, and the question of tapping or ovariotomy presented itself. I did not think the prognosis was favourable for either. I have seen such cases very ill after simple tapping, the diseased heart and kidneys not being equal to the discharge of their functions under the changed conditions of the circulation and pressure. The result of the previous tapping was not satisfactory, and I determined, after explaining the various risks to the patient, to perform ovariotomy. If she survived the actual operation, I hoped that, with the aid of antiseptics, she might do well. On July 3rd, at 2.30 P.M., Mr. Meredith carefully administered bichloride of methylene, which she took very well. Assisted by Drs. Bantock and Champneys, I removed the tumour. There were no adhesions, and I ligatured a very broad short pedicle on the right side of the uterus with two transfixions with medium silk, a special fine ligature being applied to the veins in the outer part of the pedicle, and the middle ligature, which I had purposely left long, being tied again round the whole pedicle after the tumour had been cut away. The

left ovary was turned into a cyst of the size of a small hen's egg, and I also removed it, transfixing and tying the pedicle in two halves, and afterwards passing one of the ligatures round the whole. The stumps were then dropped in with the ligatures cut short, and the wound closed by fine silk sutures. Very little sponging was necessary. I was careful in ligaturing the pedicles not to draw the ligatures tighter than was absolutely necessary to control the hæmorrhage. The whole operation was performed with the most perfect antiseptic precautions. The total weight of the solid and fluid removed was thirty pounds.

For a few days before the operation the patient's temperature had been slightly below the normal, and shortly after she had been placed in bed it was 97·4. She had a very comfortable night, skin acted well, and she was free from sickness. At 2 A.M. the temperature reached 98·4; at the morning visit at ten it was 100·0; pulse, 104; respiration, 18. There was plenty of urine of a good colour. There was no sickness during the day, and her condition was satisfactory, except that her face and hands were markedly œdematous. At 8 P.M. the temp. was 101·4, and at the evening visit at 9 P.M., 101·2; pulse, 114; respiration, 20. She had a good night, and the flatus passed well. At the morning visit, temperature, 100·4; pulse, 104; respiration, 20. The œdema was disappearing, and the quantity of urine was normal, and its appearance good. I did not test it. At 9 P.M. the temperature was again 101·2; pulse, 104; and the general condition seemed good. There were two things which were not quite satisfactory, however. She was a little bit excited in manner, and the nurse told me that since the morning she had been passing a much larger quantity of paler urine; unfortunately she had thrown it all away. I hesitated whether to apply the ice water-cap or some milder form of cold to the head, but eventually decided, as the pulse was quiet and the temperature moderate, to wait and see how she was in the morning.

At 8 A.M. she was suddenly seized with dyspnœa, and complained of pain in the chest and head; temperature, 101·2. I was not sent for at once, and did not see her till 9.30. She was then sitting up, supported by pillows, ghastly

pale, complaining much of pain in the chest and head, very restless, constantly tossing her hands about, and moving her head from side to side; temperature, 101·4; pulse, 160, feeble; respiration, 36, and apparently affected more by the cardiac condition than by the state of the lungs. I ordered small quantities of champagne, and the following draught to repeated every hour:—℞ Tinct. castor. ℥xx; tinct. digitalis ℥x; sp. eth. sulph. ℥xx; aq. camph. ℥j. And at the suggestion of my colleague, Dr. Day, who came in at the time, a large mustard plaster was applied over the lungs posteriorly. I held the patient up while this was put on, and Mr. Meredith auscultated the back, and found that the air was entering both lungs well, though there was some crepitation. The nurse now informed us that during the night she had hardly passed any urine, and the catheter only produced about an ounce of thick rather dark urine, which was found to be half albumen. There was again some œdema of hands, but none of the face. The abdominal condition appeared quite satisfactory, no distension or tenderness, and the flatus passing freely and naturally.

The same treatment was continued during the day, a quarter of an ounce of brandy in hot water being occasionally given, as it relieved the flatulence in the stomach. At one o'clock the temperature had mounted to 102·6, but the pulse had gradually fallen and improved in character. At 2 P.M. temperature, 102·2; pulse, 120; respiration, 38. She had lost the pain in the chest, but still complained of her head; two ounces of beef-tea, with half an ounce of port wine, as an enema, to be given every two hours. At the evening visit the temperature was 102·2; pulse, 112; respiration, 44; patient not quite so restless. The suppression of urine was almost complete, and as her strength was good, I stopped all stimulants by the mouth, and ordered milk and soda-water, with the following mixture, every two hours:—℞ Pot. cit. gr. xv; pot. bicarb. gr. x; sp. eth. nit. ℥xxx; tinct. hyoscyam. ℥xx in an ounce of camph. water. A large hot linseed-meal poultice, with a little mustard, to be applied over the loins every four hours. During the night and early morning she seemed to improve a little, and nearly

half a pint of urine was obtained. At 3 A.M. the temperature was 102·2. At 6 A.M. she suddenly became unconscious, and the temperature rose to 104·0, falling again to 103·0 by 7 o'clock, and she died at 8.30 A.M.

For the accompanying full account of the post-mortem examination I am indebted to my colleague, Mr. Doran :—

E. S., 56.—Operation July 3rd, 2.30 P.M. Died July 7th, 8 A.M. ; post-mortem July 7th, 11 A.M. (very hot summer's morning).

Body thin ; rigor mortis not commenced. Hardly any distension of abdomen by flatus ; edges of abdominal wound well united.

Common carotid arteries normal on both sides, being neither atheromatous, tortuous, nor dilated. Innominate artery dividing a quarter of an inch above the right sterno-clavicular articulation. Both internal jugular veins much dilated. On opening the right vein a large quantity of dark fluid blood escaped. The blood in veins all over the trunk was dark, fluid, and coagulated very slowly.

Heart weighed one pound three ounces. Its upper border extended to lower border of second rib in the line of the nipple ; the right ventricle extended three inches to the right of the sternum, at level of fourth costal cartilage. Apex reached the sixth interspace external to the line of the nipple.

All the chambers filled with fluid blood, and there was a sizy decolorised clot in the right auricle. Right auriculo-ventricular orifice wide enough to admit three fingers. Walls of right ventricle hypertrophied (one-eighth inch thick towards apex, one-fourth near valves) ; no disease of cusps of tricuspid and pulmonary valves. Left auricle dilated ; walls slightly hypertrophied. Left auriculo-ventricular orifice much dilated, admitting four fingers. Extreme hypertrophy of walls of left ventricle (from one-half to three-quarters inch thick). A few very small vegetations on edges of mitral cusps. Aortic valves thickened, corrugated. Both mitral and aortic valves highly incompetent when tested with water.

Lungs universally congested, as much in front as poste-

riorly. Right apex adherent to chest wall by an old adhesion. No consolidation, nor any trace of tubercle on either side. No fluid in pleura.

Abdomen no trace of peritonitis. Ileum very thin and empty; mucous membrane of intestines pale.

Liver three pounds eleven ounces; fatty and much congested. *Right kidney* three and a half ounces; capsule adherent; surface much puckered, very firm, and granular; small cysts throughout cortical portion of gland. *Left kidney* seven and a half ounces; very granular; several large cysts on surface.

Uterus elongated (four inches), narrow; a small subperitoneal fibro-myoma on fundus. The pedicle of the right ovary, securely ligatured, was capped by a dark friable clot; the left pedicle was similarly secured. A dark, firm, partly decolorised clot, about the size of a walnut, was found in the pelvis. It was already undergoing absorption.

This post-mortem examination clearly shows that everything in the surgical progress of the case was most satisfactory—marvellously so, if we consider the condition of the patient during the last twenty-four of the ninety hours she lived after the operation. The favourable opinion formed before death from the abdominal symptoms was fully confirmed. I would draw special attention to the presence of the small partly decolorised clot in the pelvis as an evidence of the absence of any septic condition, and to the clot capping the larger pedicle, as the perfect condition to aim at in the treatment of the ovarian pedicle by ligature. This cap of blood-clot shows that the ligatures, while tight enough to prevent serious hæmorrhage, were not so tight as to cut off all supply from the distal portion of the stump, and in an aseptic case this clot forms a most useful covering to the ligatures and cut surfaces, forming very soon as it organises free vascular connexions between the proximal and distal portions, and preventing the latter from injurious adhesions to neighbouring coils of intestine or other organs in seeking its blood supply. I have already drawn attention to this subject in a paper in the *British Medical Journal*; but I would repeat: If the pedicle is too roughly and tightly

ligatured, the distal portion is strangulated, and if it retains its vitality at all, it must adhere to something to obtain blood supply. To avoid this we may cut off the pedicle very close to the ligature, but in so doing run great risk of slipping and hæmorrhage. I believe the ligatures grasping the nerves of the pedicle may be another source of danger if too tightly tied.

My reading of the case before death was as follows:— Sudden alteration of the blood pressure from removal of a large vascular tumour, together with the slight fever due to the operation, threw too great a strain upon the diseased kidneys, and they failed to do their work, their failure being indicated first by the œdema and afterwards by the large quantity of pale urine preceding the suppression. The heart, already taxed to the utmost by its own diseased condition and the state of the arteries throughout the body, was unable to perform its work when it had to deal with the blood charged with the products which the kidneys should have excreted. The lungs as a consequence became gorged, and then the heart failed altogether. Of course, the state of the brain from the uræmia intensified all the morbid actions, and probably was the immediate cause of death. I think it is quite likely the changes in the circulation would have led to the same result had a simple tapping been decided on, and I do not regret the performance of the major operation.

POST-PARTUM HÆMORRHAGE,

WITH NOTES OF THREE CASES SUCCESSFULLY TREATED BY COMPRESSION OF THE ABDOMINAL AORTA.*

By M. M. Bradley, M.D.

Jarrow-on-Tyne.

Mr. President and Gentlemen,—

There is no accident that can befall the parturient woman so dangerous as flooding: nor is the medical man

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* Read at the Spring Meeting of the North of England Branch British Medical Association.

ever called upon under any circumstances where skill, presence of mind, and promptitude of action are more required. To become possessed of those qualities it is highly essential that we know the causes and treatment of hæmorrhage, and as a means to that end I propose to deal with that form which follows upon the birth of the child. Irrespective of hæmorrhage caused by rents or tearing of uterine tissue, and also that due to pathological conditions, such as tumours of a fibroid, fungoid,* or polypoid character, or morbid adhesions existing between the serous and muscular coats, and between the placenta and uterus (mucous membrane of), I purpose to deal with that condition more immediately depending upon the constitution of the patient; atony of the uterus from excessive or long-continued muscular action, over-distension, owing to the presence of more than one fœtus, or hydrops amnii, and also the presence of foreign bodies within the uterus. But before entering upon this wide and important subject, I would respectfully solicit your indulgence while I briefly refer to prophylaxis. It has been held that as parturition is a natural process it must needs, if judiciously managed, uninterfered with or unaided, terminate favourably; and the success which has attended some individuals, and perhaps many here present, would go far to confirm this argument in all its entirety.

But, on the other hand, there are many others (and I myself among that number) who know how utterly fallacious such an argument is, albeit at one time willing to endorse it with the stamp of experience. Hæmorrhage will occur; and although we cannot at all times prevent such a melancholy catastrophe, we can be ever on our guard against it, so as to reduce its occurrence to a minimum, and by anticipation avail ourselves of those remedies and means which experience has shown and practice proved to be the most beneficial for that purpose. More than a quarter of a century ago, Dr. Ewing Whittle† pointed out to the members of the Medical Society of Liverpool, "that the probable occurrence of post-

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* *Obs. Journ. Great Britain and Ireland*, May, 1876, p. 119.
† *Brit. Med. Journ.*, Sept. 27th, 1873, p. 370.