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GLIMPSES OF ABDOMINAL SURGERY IN EUROPE
DURING THE PAST SUMMER.

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(Read before the Medico-Chirurgical Society of Montreal.)

MR. PRESIDENT AND GENTLEMEN—At the request of certain members of this Society, I offer a brief narrative description of operators and some of the operations done by them which it was my good fortune to see during a recent visit to Europe. The pleasure of the task before me may be somewhat lessened when I reflect that I shall be giving descriptions of men and things actually seen by a few of the fellows of this Society, and repeating descriptions given by distinguished American gynæcologists who have also been abroad this season, and which nearly all of you have doubtless read. These descriptions refer to several of the same men and to a few of the same operations witnessed by myself. My narrative may therefore be to many of you as a tale that is twice told. My main object in going abroad was to see abdominal surgery, and the men I wanted most to see were Lawson Tait, Thornton and Bantock of England, and Schröder and Martin, the great lights of Berlin. On landing at Liverpool, I proceeded almost immediately to Birmingham, and for a few days became the guest of my friend Mr. Tait. Here I found letters informing me that if I wished to see Schröder and Martin I must lose no time in getting to Berlin, as these gentlemen cease operating and go for holidays early in

August. So, having ascertained that my friend would be at home and at work in August and September, I proceeded to London on my way to the continent—not, however, until I had seen three abdominal sections by Mr. Tait. To these I shall refer later. On reaching the metropolis, I found that the Samaritan Hospital would shortly be closed, as is the annual custom, for a few weeks. During the three or four days I spent in London I saw Dr. Bantock and Mr. Thornton each do one abdominal section. These two gentlemen, with Mr. Meredith, constitute the surgical staff of the little hospital in which so much has been done for abdominal surgery by Sir Spencer Wells and themselves. The building is a terrace house, to which a few years ago two storeys were added. The management hope in a short time to have a new building, in every way better suited to the important work of this most interesting institution. Dr. Bantock and Mr. Thornton work side by side, doing by far the greater part of the work, but their methods differ widely in this particular, that Dr. Bantock abstains entirely from the so-called Listerian precautions, while his colleague observes them all to the most minute detail, and still, to say the least, their results are equally good—a remarkable fact, to say no more of it. I had a letter of introduction from Mr. Tait to Dr. Bantock, and was received by him with very great kindness indeed. Of pleasant reminiscences of my late visit to Europe, one of the pleasantest is, perhaps, of some long conversations with that gentleman on, of course, the great gynæcological topics of the day.

Of the well nigh fifty abdominal sections I saw while abroad, it was my singular good fortune to see very few simple and uncomplicated. I had thus an opportunity of learning the methods of dealing with ugly complications employed by some of the most eminent abdominal surgeons in the world. The operation I saw Dr. Bantock do was an ovariectomy, the cyst being extensively adherent to the parietes and the whole of the fundus and posterior surface of the uterus, while it was of the intra-ligamentous variety, and attached to the whole floor of the pelvis. The assistant was Mr. Alban Doran, assistant surgeon to the hospital,

and the author of the valuable little book on "Tumors of the Ovary, Fallopian Tube and Broad Ligament." No spray. Long abdominal incision. After tapping and separation of anterior and other adhesions, Dr. Bantock proceeded to incise the peritoneal investment of the cyst near its base, and to enucleate it. This was not so difficult a procedure as might have been expected. It left a very extensive oozing cavity composed of the whole floor of the pelvis. Adhesions to the uterus were so dense, and bled so freely, that the operator decided to treat it by hysterectomy. A Koeberlé's serrenœud was applied to the cervical portion, screwed up, and the uterus cut off. The stump was supported by two pins, made to transfix it and rest on the abdominal wall. The peritoneal cavity was washed out, the edges of the cavity whence the cyst was enucleated attached to the edges of the abdominal incision and a drainage-tube carried to its bottom, and after a most careful toilette of the peritoneum, the incision was closed by silk-worm gut sutures, the material Dr. Bantock always uses for this purpose. The most accurate coaptation was effected. This operation lasted two hours, and was beautifully and most carefully done. Dr. Bantock showed me his patient next day. She recovered perfectly.

Mr. Thornton's case was a pelvic abscess bursting into the vagina and leaving a fistula. He is a beautiful operator, careful, dexterous, giving great attention to details, and taking plenty of time. Listerian precautions throughout, including dense carbolic spray from a large apparatus. A long incision, careful and clever tucking up of the intestines with a large flat sponge. Right ovary and tube extensively adherent and filled with pus. Bursting of the abscess during separation of adhesions with the fingers. The pus horribly foetid. Tube and ovary tied with silk and quickly removed. The stinking pus was mopped out with a sponge dipped in 1-1000 sublimate solution, by which the odor was quickly destroyed. The raw, pus-secreting surface was further dosed with a strong solution of iodine, and then again and again boiled water was poured into the abdominal cavity in large quantity till it returned perfectly clear and odorless. The water was carefully sponged out, and then a glass drainage-tube carried to the floor of the pelvis. Abdominal

suture silk—a straight needle at either end. Vagina thoroughly washed out with sublimate solution. This patient made a perfect recovery. I was much struck with this operation, and it then seemed to me a model way of dealing with a difficult and dangerous class of cases.

The method of dressing the end of the drainage-tube employed by Bantock and Thornton is the same. It consists of a piece of rubber cloth with a button-hole slit, through which the tube is passed. The rubber cloth is then carefully folded over the absorbent dressings around the end of the tube.

I next proceeded to Berlin, where, in ten to twelve days, I saw eight laparotomies and four total vaginal extirpations of the uterus, besides a number of minor gynecological operations by Schröder, Hofmeier, Gusserow and Martin. I wish here to remark upon the extensive additions to hospital and clinic accommodation in Berlin since my previous visit, ten years ago. In various parts of the city a number of magnificent new buildings rear their heads. One of the finest of these is the Universitäts Frauen-Klinik, presided over by Prof. Schröder, who is ably seconded by his assistants, Hofmeier and Reichel. Magnificent is, indeed, the only word that may adequately characterize Schröder's hospital. Everything that money can secure for the institution has been obtained. Herr Geheim-Rath Schröder (for he has recently attained to the rank of privy councillor), as an operator, impresses the spectator very much by his coolness and rapid and dexterous style. The hour is half-past seven in the morning, and with his invitation the visitor is enjoined to take a bath and change his clothing. One must be punctual, for Schröder, exactly at the hour, and attired in a white linen suit, walks along the corridor from the door which directly communicates with his dwelling, and enters the operating room. The visitors have previously entered. The door is now shut and locked. The patient is already under chloroform, the only anæsthetic I saw used in Berlin, and it was always given in the same manner. A wire frame, covered with a piece of flannel or similar material, is held over the mouth and nostrils, and the chloroform poured on from a dropping bottle. The most perfect silence in the room. The spectators, sometimes numbering seven, are

ranged in a row at a little distance from the foot of the table. Contrary to general custom, Schröder stands on the left of the patient; on her right is his assistant, Hofmeier, Secundararzt to the hospital. No spray. The instruments lie in shallow glass dishes, covered with an antiseptic solution, within easy reach of the operator. The needles and ligatures are in charge of a nurse who stands near the head of the patient. Schröder uses a knife with a blade at least four inches long, and by a few rapid cuts from pubes to umbilicus upwards, opens the abdominal cavity. He then makes a rapid survey, searching for and separating anterior adhesions. No trocar is used, but the knife is plunged into the cyst, the woman being turned on her side while it empties, but no particular care is taken to prevent entrance of cyst fluid to the peritoneal cavity. The abdominal suture is made by curved steel needles, held by a needle holder. They are passed through the whole thickness of the abdominal wall, nearly an inch apart. A few superficial sutures are used, but no great care to carefully adjust the edges.

I saw Schröder do four ovariectomies, three of which were simple enough and soon over, but the fourth was evidently a malignant tumor, with numerous very vascular, parietal and pelvic adhesions—some to viscera. The bleeding points were tied where practicable, but as troublesome oozing from the pelvis continued, the vagina was tightly tamponed, while sponge pressure was being made from above in the pelvis. Abdominal suture was then rapidly completed, and compresses over the parietes with a firmly applied bandage—the whole a very different method to Lawson Tait's for similar complications.

Gusserow is the second professor of obstetrics in the University of Berlin—a quick, nervous, excitable, friendly little man, speaking English fairly well. His clinic is a fine new building, one of the departments of the great Charité Hospital. I saw him do two laparotomies—the first a so-called Tait's operation, but of which I am sure that distinguished surgeon would absolutely refuse the paternity. I arrived late and did not get a good view, but this much I did see—an enormous quantity of silk for ligature purposes left in the peritoneal cavity. The ligatures were all applied by transfixing the part with a curved

needle in the bite of a needle holder, and the double thread was always tied. Whatever may be the capacities of German women in this respect, I am well convinced that no American woman could encyst, absorb, or otherwise dispose of the quantity of silk I saw left in that woman's peritoneum. She, however, was doing well next day and for at least a day or two later. The sponges, too, would horrify an English or American surgeon. The other operation was a simple ovariectomy.

Dr. August Martin, son of the late celebrated Eduard Martin, is a privat-docent in gynæcology in the University of Berlin. He is an enormous man, who receives his visitors with great courtesy and kindness. He has a private hospital with forty beds, and a large out-patient clinic. Here, every day in the week, some operations may be seen. The hospital is in charge of Frau Horn, a remarkable woman, who assists at all operations, and who, I am well convinced, could do an ovariectomy nearly as well as the master himself. I have seen her more than once, when one of the assistants was doing some minor operation, take the curette or other instrument from his hands and show him how, in her opinion, it ought to be used, an interference which, however, none of them seemed to resent. I saw Martin do two laparotomies and three total vaginal extirpations of the uterus. He is a rapid and most dexterous operator, although I cannot possibly approve of some of his methods. The abdominal sections here, as in the case of each of the other Berlin surgeons I have mentioned, are done in a room used for no other purpose. Spray before, but not during the operation. The hour, that which is most convenient; on one occasion half-past 8 a.m., the other at half-past 11. The table, a low, short, iron structure. The patient's legs hang over the table, and Dr. Martin sits between her thighs. The spectators are instructed to take a bath, and before being admitted to the room, each must take off his coat, waistcoat, collar and necktie, and suspenders. The operator is clad in a white linen suit, and wears rubber galoches. The latter precaution is soon seen to be necessary, as the floor of the room is swimming with solutions from the fingers, ovarian fluid, or whatever may happen to fall thereon. In all cases, however simple, the Berlin men make a long, slashing cut through the

abdominal wall from umbilicus to the pubes, and to this rule Martin's method is no exception. The peritoneal cavity is open in a remarkably short space of time. The first operation I saw Martin do was a so-called Tait's operation. The first thing he did on getting in was to turn out all the intestines over the upper part of the abdomen, and immediately Frau Horn covered them with a warm carbolized towel slapped over them, a procedure which would make Lawson Tait fly in horror from the room. Extensive adhesion of ovaries and tubes. One was separated and ligatured; the other so extensively adherent that it was let alone, the intestines returned, and abdominal suture applied. I did not gather the diagnosis in the second case, but on opening the peritoneal cavity general tuberculosis of that membrane was found, or what was supposed to be that condition was found, and after snipping off a small portion for microscopic examination, the abdomen was closed without any further interference.

Martin is a remarkably neat and rapid operator for total vaginal extirpation of the uterus for cancer. Scarcely a day passed without one or more operations on the cervix uteri for conditions which Emmet and his followers would call laceration and its consequences. It consists in a modified amputation of the cervix, in which the muscular tissue and diseased mucosa of the cervix are amputated, and the edges of the vaginal investment of the cervix are sutured to the edge of the incision on its inner surface. This amputation was almost always preceded by curetting the cavity, its irrigation to remove shreds, and the subsequent injection into the uterine cavity of a solution of persulphate of iron, the excess of which was always immediately removed by the stream from the irrigator.

On my return from the continent I proceeded to Brighton to attend the annual meeting of the British Medical Association. In the section for obstetrics, the principal subjects for discussion were, *The Alternatives of Craniotomy*, *The Treatment of Extra-uterine Foetation*, and *The Removal of the Uterine Appendages*. the most eminent authorities in Britain and some very prominent Americans taking part. A week later, on the 16th of August, I again reached Lawson Tait, and remained with him for a month. During this period I saw an immense amount of work, chiefly,

of course, in abdominal surgery. I believe I am correct when I say that he does by a very long way more abdominal sections than any other man. For rapidity, dexterity, coolness and readiness for any emergency, however trying, he is simply marvellous, and to these qualities, as well as to his indomitable energy and extraordinary physique, are due his success. On Tuesday, the 17th August, I saw him do four abdominal sections, two vesicovaginal fistulæ and one perineorrhaphy; and during the next four days he did at least ten other laparotomies for various conditions. I do not know the annual number of cases done by Mr. Tait, but it must considerably exceed an average of one for each working day. During three weeks I had the honor and advantage of assisting him with all his operations, but Mr. Tait's wonderfully nimble fingers leave little to do for his assistant under any circumstances. Indeed the great secret of success in his assistant is in knowing how little he must do and in abstaining from doing everything else. Mr. Tait's operations are for the most part done in his private hospital, which adjoins his dwelling in The Crescent, a short, quiet street in the centre of smoky Birmingham, and in the Birmingham and Midland Hospital at Sparkhill, a suburb of the town. It is probably known to most of the members of this Society that some authorities, notably Emmet of New York, credit Mr. Tait's phenomenal results to this very smoke of Birmingham, but he is much amused at the idea. He avoids, if he can, operating anywhere else, and then only if he can secure for the patient a nurse trained by himself. The majority of the cases are done at nine in the morning, but occasionally, when there is press of work, he also operates between two and three in the afternoon. The anæsthetic is a mixture of chloroform one part and ether two parts by measure. Heat is evolved when this mixture is made, implying, I suppose, some chemical combination. It is given by Clover's inhaler, which secures economy of the drugs and comparative purity of the air of the room—a great advantage to operator and his assistants. Mr. Tait believes this combination to be the safest he has tried, and has had an experience of it in 1500 cases without a death and without any *contretemps* worthy the name; and he told me he had had deaths from every other anæsthetic he had used. He

insists on perfect silence during its administration. This is managed by Dr. Annie Clarke, his only paid assistant. All operations are done in the room the patient is to occupy. The table consists of a board eighteen or twenty inches wide, and about five feet long, which rests on two trestles. The head of the table is about three inches higher than the foot. In this, as in every appointment of his hospital and detail of his operations, simplicity is the most striking feature. So far as I know, no conditions are exacted of spectators invited to be present at operations. Both arms and legs of the patient are strapped to the table. Mr. Tait stands on the right of the patient, and his assistant on the left. At his right hand is a small table with the most necessary instruments immersed in plain water. Absolutely no antiseptic is used for any purpose whatever. I never saw or smelt either carbolic acid or sublimate, or any other solution of the kind during the five weeks I spent with him. Two basins of warm water rest on chairs, one at either hand of the operator. That on the right is for the sponges; that on the left to rinse the hands when necessary. A calico bag containing the carefully-prepared sponges hangs within easy reach of the right hand. Mr. Tait prepares for the operation by taking off his coat, putting on a rubber apron, and washing his hands and arms with terebene soap, without a nail-brush, which I never saw at any of his operations. Everything being ready, he takes half-a-dozen sponges from the bag and drops them in the basin for the purpose. He then takes up a case of scalpels which rests on the window and selects one, trying it on his thumb. The knives Mr. Tait uses are small ones, seldom more than an inch in length. The incision is then made, and one of the most remarkable things about his methods is the incredibly short incisions through which he does his many remarkable feats of operating. For removing the appendages, even if densely adherent, 1 inch to $1\frac{1}{2}$ is the rule, and that applies to the cut in the superficial tissues. The peritoneum is incised only to an extent permitting his left index to enter; after this is crowded in the middle finger, with which the ovary and tube are separated from adhesions if necessary, grasped, and fished out through the abdominal incision to be ligatured. Such an operation, even when there are adhesions, is usually complete, includ-

ing the abdominal suture and dressing, in from nine to fifteen minutes, and so, in proportion, are other operations done with the same marvellous rapidity. Mr. Tait succeeds in removing adherent multilocular cystomata through wonderfully short incisions by getting his fingers in through the anterior large cyst after it has been tapped and opened, and breaking up the solid matter and small dense-walled cysts. One of the strong statements so characteristic of the man is that no laparotomy ought ever to take more than an hour, and he who thus consumes more time doesn't understand his business. It was my fortune to see him do scarcely anything that could be called simple, except a few of the removals of appendages, but I was told by a number of Americans who saw him do a simple ovariectomy for a unilocular cyst, that it was all over in exactly five minutes.

Mr. Tait uses the drainage-tube very often, and also very often washes out the peritoneum. He does not wait, as those who have seen Keith say he does, to tie or otherwise arrest every bleeding point, but if the oozing is inconsiderable, and sometimes even when it seemed to me considerable, he puts in a drainage-tube to the bottom of the Douglas pouch, and closes the wound, the accumulation in the tube being removed from time to time by a rubber ball and glass sucker, with a piece of rubber tubing at its end, which is made to dip to the bottom of the tube. During the operation he controls oozing surfaces by the pressure of sponges. If this is insufficient to stay the bleeding, he uses the cautery, or, as it seemed to me, oftener the perchloride of iron. A lump of the salt is dissolved in a few ounces of water and applied lightly to the part with a sponge, or a piece of the salt is grasped with forceps and pressed on the bleeding point. This applies to bleeding that cannot easily be reached by silk ligature, and he never uses catgut or any other. For washing out he uses plain water, which may have been boiled, but which many times I have seen him cool sufficiently by the addition of cold water as it came from the tap. All washing out cases are also treated by the drainage-tube, through which the remains of the water are sucked out, as they subside to the most dependent part, as well as by sponging. One of the great advantages of the drainage-tube claimed by Tait is that, besides its rendering

possible and easy the removal of blood and bloody serum, it enables him at once to see if the bleeding is serious, and to take measures to arrest it without taking out the tube or opening up the wound, and, in a number of such, the method has been to inject through the tube a watery solution of perchloride of iron, a procedure he has found perfectly successful. Silk is the material for the abdominal sutures, and it is passed through all the structures, muscle included, by a triangular needle threaded with a very long piece, which is passed continuously, leaving long loops, which are then cut, and so make the ordinary interrupted sutures. No superficial sutures are ever used, and certainly no extraordinary care taken to secure accurate coaptation of the edges. The dressing always consists of pads of gauze filled with plain absorbent cotton, held on by loosely applied strips of adhesive plaster, and over all a cotton bandage. It must not be supposed that doing, as I have many times seen him do, the most difficult and complicated things in an incredibly short space of time he gives the impression of haste or hurry, or that anything is left undone or done in a perfunctory manner.

Of the many interesting things I saw Mr. Tait do, I can briefly relate to-night only a few. One of the first cases was that of a lady from America, who presented the symptom of passing foecal matter from the uterus. She was unmarried and past the menopause. Some solid masses could be felt in the pelvis. He did not bother much thinking what it might be, but cut in to see, when he found a multinodular myoma. He immediately concluded that the source of the trouble was a nodule which had become adherent to intestine and breaking down by a process of suppuration or necrosis had discharged into both uterus and intestine. He treated the case by hysterectomy, and cured her. I saw her five weeks afterwards, just before she left for home, and she was quite well. And while on the subject of hysterectomy, I saw two others, both treated extra-peritoneally by the Koeberlé serrencœud, the method Mr. Tait always adopts. He has also tried the intra-peritoneal method, but found it unreliable in controlling bleeding, and so, after losing some cases, he has gone back to the old method. After one of these operations,

he told me that it made about the twentieth successive successful case of hysterectomy treated in this way. Both of these got well.

Sarcoma of the Kidney.—This was a large tumor distending the abdomen, with an indistinct fluctuation-like sensation, extending to and felt in the pelvis. It had been diagnosed as ovarian, and Mr. Tait had agreed in this. It was a tremendously bloody operation to shell this vascular growth of the size of a foot-ball from its capsule, and it gave my friend a fine opportunity for the display of his coolness and fertility of resource. I saw the patient occasionally for two or three weeks after, slowly recovering from a terribly grave operation, to die, I suppose, later from recurrence of the growth.

Burst Ovarian Tumor.—Of these I saw three or four. One was a colloid cyst, and the jelly-like contents filled the peritoneum, sticking to everything. It appeared to be malignant, and had extensive pelvic as well as other adhesions, which bled freely. This patient died in 24 hours, the only death during all the time I was with Tait, except a cholecystotomy, to be mentioned later. These burst cyst cases were all treated by washing out and the drainage-tube.

Laparotomy in a Puerperal Fever Case.—The patient, a lady (primipara) living at Wolverhampton, had a very difficult labor, and soon after developed symptoms of inflammation; severe pain, fever, incessant vomiting, exceedingly rapid and feeble pulse, and every evidence of impending death. About the seventh day, at her physician's request, Mr. Tait, with myself as assistant, went to Wolverhampton, some 20 miles from Birmingham, to see her. It was decided to open the abdomen. This was done by a two-inch incision, through which Mr. Tait got in his left index and middle finger. He found an encysted collection of horribly stinking bloody fluid to the left, and behind the uterus. This he burst with his finger, and sponged out, placing a drainage-tube in the bottom of the cavity. No washing out, although this had been contemplated. The patient was left, with instructions to her medical man that absolutely nothing should be given by mouth, and that turpentine and soap-suds

enemata be administered per rectum. The pulse improved within half an hour, the vomiting never recurred, and the patient made a continuous and rapid recovery.

Two days later, in company with Mr. Tait and Dr. James R. Chadwick of Boston, I saw Dr. Savage, Mr. Tait's colleague at the Birmingham and Midland Hospital for Women, do the same operation in a similar case. The patient was the wife of a physician of Birmingham, and had been confined a week before, and presented much the same set of symptoms as described in the previous case. Here, however, a large quantity of sero-purulent fluid escaped as soon as the peritoneum was opened. It was thoroughly and carefully washed out, and a drainage-tube inserted. The patient, however, died five or six days afterwards.

I cannot describe to you how full of interest these cases were to me, opening up, as they did, a new field for abdominal section. Mr. Tait told me that he had done already three or four such cases, saving half of them.

Cholecystotomy.—Of this operation, of which my friend is practically the originator, and has in Europe the field nearly all to himself, it was my good fortune to see two. The first was that of a very fat, deeply-jaundiced woman, with a skin presenting abundant evidence of the intense itching she had suffered. A diffuse, indistinct, fluctuating swelling could be felt in the region of the gall-bladder. An incision two or three inches long, running obliquely downwards and outwards, commencing a little above the lower edges of the ribs and extending two or three inches lower over the swelling, was made. On opening the peritoneum, the enormously distended gall-bladder was at once seen. It was tapped with a curved trocar, and 40 ounces of thick, dark green bile let out. The opening made by the trocar was then extended, and with forceps and scoop ten gall-stones were extracted. The edges of the opening in the gall-bladder were sewed to the edges of the abdominal wound, and a large rubber drainage-tube inserted. This patient died a few days afterwards, and at the autopsy cancer of the liver was found. The second was a case in which Mr. Tait was averse to operating, believing the evidence of cancer to be very strong. Ultimately, however, he decided to give her the benefit of ex-

ploration. The gall-bladder was found distended with half a pint of pus, and containing one good-sized gall-stone, but no evidences of cancer. I cannot speak of the ultimate fate of this case, as it occurred only a day or two before I left Birmingham.

Of Mr. Tait's remarkable success in abdominal surgery I can speak from personal knowledge, as by his kindness I had an opportunity of seeing repeatedly the most unfavorable cases till they were convalescent.

The after-treatment adopted by so successful a surgeon must be to all concerned as a most interesting matter. For 36 hours Mr. Tait allows absolutely nothing, not even water, by mouth. No morphia or any preparation of opium is ever given, except to ease a dying patient out of the world. As soon as any symptoms of peritonitis appear, such as pain, distension, vomiting, rise of pulse or temperature, seidlitz powders by mouth and soap-suds and turpentine enemata are given at intervals, till flatus passes and the bowels act.

My own impressions as to the reasons of Mr. Tait's remarkable success are that it cannot be credited to any single circumstance, but to the whole of his methods, which present such abundant evidence of the influence of so vast and unparalleled an amount of experience.