

shall conclude these notices. A scruple of the dried leaves was the quantity used each time; and this was thought the safest method of administering a medicine, the operation of which is irregular, and sometimes difficult to manage. I have seen the common dose, a drachm, give rise to deadly sickness, fainting, convulsions, intermitting pulse, vertigo, double vision, and every thing alarming,—short of actual death; and the same quantity is sometimes injected without any inconvenience. This want of uniformity, I am satisfied, does not depend in every case on the mere qualities of the herb. It appears to bear an intimate relation to the state of the mucous surface of the intestines, particularly its absorbing power. If the colon has been recently evacuated, if it is rather empty, or if, in short, there is reason to believe that its absorbent power is at the moment considerable, a small dose is not only sufficient to produce the effect, but is even indispensably necessary to the safe operation of the remedy.

August 10th, 1824.

II.

Observations on Extirpation of the Ovaria, with Cases. By JOHN LIZARS, F. R. S. E., F. R. C. S. E., and Lecturer on Anatomy and Physiology, Edinburgh.

“Cet exemple, et celui de l'amputation totale de l'utérus et du vagin, pratiquée avec succès, autorisent également à assurer qu'avec les connoissances profondes de l'anatomie, il n'est guère d'organes sur lesquels on ne puisse exercer avec avantage les diverses opérations de la chirurgie.”—L'AUMONIER.

FROM the records of medicine, the ovaria seem as subject to disease as any other organ in the body; and, from their attaining enormous size, producing great pain, and destroying the life of the sufferer, they have early called the attention of practitioners. They appear subject to dropsy, the fluid being contained either in one or more cysts; and to dropsy, combined with various degenerations of texture and morbid productions. Various modes of treatment have been invented, and had recourse to, for the numerous varieties of this disease. For the simple dropsical affection, tapping, or *paracentesis abdominis*, has been employed; but it has only proved a temporary palliative. Puncturing, and keeping the orifice open, so as to seize hold of the sac and remove it gradually, has effected a permanent cure; and the same end, it will appear, has been accom-

plished by the operation of gastrotomy, or the making a free incision into the abdomen, and removing the entire sac, especially where the tumour has consisted of some firm substance.

Le Dran cured dropsy, with scirrhus of the ovarium, by incision and suppuration; and Professor Dzondi of Hallé informed me that he had frequently cured this disease by incision, and the introduction of a tent, and afterwards removing the sloughing sac by the forceps.

But the total extirpation of the ovarium, both in a healthy and diseased state, has been performed; and it is the design of this paper to consider the propriety of such an operation, with the view of obtaining a radical cure of dropsical ovarium. "On châtre," says Morand, "les femelles non seulement des volatiles, mais même des quadrupeds, sans danger. Cette operation appliquée aux femmes n'a point paru une chimere à Felix Platerus et à Diemerbroeck; c'étoit au rapport de Heyschius une operation commune chez les Lydiens, pour des raisons qui ne sont point de l'art." In other examples, also, the peritoneal cavity has been freely laid open, both accidentally and intentionally, and the intestines exposed to the contact of the air, without injury. Paulus Barbette of Amsterdam laid open the abdomen, and disengaged the strangulated or twisted intestine in a case of volvulus. Bonetus relates the case of a lady who was dying of intususception, when a military surgeon opened the abdomen, disentangled the twisted intestine, and effected a cure. Schacht operated for the same peculiar disease with success. Besides these, there are many well authenticated cases of the Cæsarian operation performed, even for six times on the same woman, with success. In mostly all the cases of diseased ovaria on record, and in all the dissections of this disease which I have witnessed, the tumour was appended by a small pedicle, merely the broad ligament of the uterus. The largest I ever saw, I have kept as a preparation; and although a great quantity of the gelatinous matter, and all the serous fluid, has been necessarily removed, it still weighs 25 lbs.

But the practicability of extirpating a diseased ovarium does not rest on theory. It has been proved by experience. L'Aumonier, who was chief surgeon of the great hospital at Rouen about fifty years ago, extirpated the ovarium successfully; and since his time an ovarium has been repeatedly removed, and sometimes with success, particularly in France, Germany, and America. Dr Smith of Connecticut lately extirpated an ovarium in a dropsical state, successfully. Three very instructive cases occurred to Dr Macdowal of Kentucky; and the following history of them was sent, about seven years ago, to the late

celebrated surgeon Mr John Bell, who was then on the Continent, and came into my hands as having the charge of his patients and professional correspondence during his absence.)

“In December 1809, Dr Macdowal was called to see Mrs Crawford, who had for several months thought herself pregnant. She was afflicted with pains similar to labour pains, from which she could find no relief; and so strong was the presumption of her being in the last stage of pregnancy, that two physicians, who were consulted on her case, requested,” says Dr Macdowal, “my aid in delivering her. The abdomen was considerably enlarged, and had the appearance of pregnancy, though the inclination of the tumour was to one side, admitting of an easy removal to the other. Upon examination, I found nothing in the uterus; which induced the conclusion that it must be an enlarged ovarium. Having never seen so large a substance extracted, or heard of success attending an operation such as this, I gave to the unhappy woman information of her dangerous situation. She seemed willing to undergo an experiment, which I promised to perform if she would come to Danville, the town where I resided, a distance of sixty miles. This seemed almost impracticable, by even the most favourable conveyance; yet she performed the journey in a few days on horseback. With the assistance,” says Dr Macdowal, “of my nephew and colleague, I commenced the operation, which was conducted in the following manner. Having placed her on a table of the ordinary height, on her back, and removed all her dress which might in any way impede the operation, I made an incision on the left side, about three inches distant from the *musculus rectus abdominis*, continuing it nine inches in length, parallel with the fibres of the above named muscle, extending into the cavity of the abdomen, the parietes of which were a good deal contused, which we ascribed to the resting of the tumour on the horns of the saddle during the journey. The tumour then appeared full in view, but it was so large that we could not remove it entire. We put a strong ligature round the fallopian tube, near the uterus, then cut open the tumour, which was the ovarium and fimbriated parts of the fallopian tube very much enlarged. We took out fifteen pounds of a dirty gelatinous-looking substance; after which we cut through the fallopian tube, and extracted the sac, which weighed seven pounds and a half. We then turned her on her left side, so as to permit the blood to escape. After this we closed the external opening with the interrupted suture, leaving out, at the lower end of the incision, the ligature that surrounded the fallopian tube. Between every two stitches we

put a strip of adhesive plaster, which, by keeping the parts in contact, hastened the healing of the incision. We then applied the usual dressing, put her to bed, and prescribed a strict observance of the antiphlogistic regimen. As soon as the external opening was made, the intestines rushed out upon the table; and so completely was the abdomen filled by the tumour, that they could not be replaced during the operation, which lasted about twenty-five minutes. In five days I visited her, and, much to my astonishment, found her engaged in making up her bed. I enjoined her to take particular caution for the future; and in thirty-five days she returned home in good health, which she continues to enjoy."

"Since the above case," says Dr Macdowal, "I was called to a Negro woman, who had a very painful hard tumour in the abdomen. I gave her mercury for three or four weeks, with some abatement of pain; but she was still unable to perform her usual duties. As the tumour was fixed and immoveable, I did not advise an operation; though from the earnest solicitation of her master, and her own distressed condition, I agreed to the experiment. I placed her on a table, laid the abdomen open, as in the preceding case, inserted my hand, and found the ovaria very much enlarged, painful to the touch, and firmly adhering to the *vesica urinaria* and *fundus uteri*. To extract this, I thought, would be instantly fatal; but, by way of experiment, I plunged the scalpel into the diseased part, when the same gelatinous substance, as in the above case, with a profusion of blood, rushed to the external opening, which I conveyed off by placing my hand under the tumour, suffering the discharge to run over it. Notwithstanding my great care, a quart or more of blood escaped into the abdomen; and, after the hemorrhage ceased, I removed, as cleanly as possible, the blood, in which the bowels were completely enveloped. Though I considered the case as nearly hopeless, I advised the same dressings and the same regimen as in the above case. She has entirely recovered from all pain, and pursues her ordinary occupations.

In May 1816 "a Negro woman was brought to me," says Dr Macdowal, "from a distance, in whom I found the ovaria much enlarged, and, as the tumour could be easily removed from side to side, I advised the extraction of it. As the tumour adhered to the left side, I changed my place of opening to the *linea alba*. I began the incision, in company with my partner and colleague, Dr Coffee, half an inch below the umbilicus, and extended it to within an inch of the *os pubis*. I then put a ligature round the fallopian tube, and endeavoured to turn out

the tumour, but could not. I therefore extended the incision upwards two inches above the umbilicus, turned out a scirrhous ovarium weighing six pounds; and cut it off close to the ligature formerly put round the fallopian tube. I now closed the external opening, as in the former case, and, as the patient complained of cold and chilliness, I put her to bed before dressing her, gave her a wine glassful of cherry brandy and thirty drops of laudanum, which, soon restoring her accustomed warmth, she was dressed as usual. She was well in two weeks, though the ligature could not be removed for five weeks, at the end of which time the cord was taken away; and she now officiates as cook to a large family, without complaint."

In the year 1821, I was requested by my friend, Dr Campbell, lecturer on midwifery, to visit a woman with an abdomen as large as if in the ninth month of gestation. On examination, the tumour occupied the whole abdominal cavity, and appeared to roll from side to side; the uterus *per vaginam* felt natural, and her catamenia had been regular, but caused excruciating pain when they occurred. She stated that she was twenty-seven years of age, had born only one child, and in twelve months afterwards had a miscarriage, two or three months after which, towards the end of 1815, she became sensible of a considerable enlargement of her belly, that began on the left side, and which she attributed to several blows and kicks received from a brutal husband, from whom she was now separated; that her neighbours now abused her, and made such complaints to her employers that they dismissed her. At that time she earned, and now earns, her livelihood by binding shoes. Being now without the means of support, she applied to a county hospital, but was in a few days dismissed, on the supposition of being with child. She then consulted a number of respectable practitioners, but all of them cruelly taunted her with being pregnant. At the end of two years she perceived a small moveable swelling in her left groin, which she allowed to increase for twelve months, when she came to Edinburgh, and, on consulting a surgeon, he opened it with a lancet, and discharged a large quantity of thin matter. On examination this was a lumbar abscess, which she ascribed to a fall on her back three years previously. The evacuation of this fluid did not in the least diminish the magnitude of the abdomen; and she imagined she could distinguish between the pain of the lumbar abscess and that of the tumour in the abdomen. She was admitted into the hospital of this place, and remained for thirteen weeks, without receiving any relief. She consulted the chief medical gentlemen of this city, many of whom pronounced her

pregnant, and all of them tried to dissuade her from an operation. Two put her under different courses of mercury, and, after a consultation, one punctured the abdomen for dropsy of the ovarium.

Before having recourse to the operation of gastrotomy, I deemed it my duty to have the opinion of the principal practitioners of this city, either by personal consultation, or by sending the patient to them. The woman herself also had previously waited on many of them. Some said that to operate would be rash; others, that I would kill my patient. It was agreed by all, that there was a disease of one or both ovaries; and she had been twice tapped for dropsy of the left ovary, the result of a formal consultation of some of the ablest medical men of this city. Convinced, from the history of the disease in the records of medicine, and from gastrotomy having been successfully performed for volvulus, and from the Cæsarian section, that there was little to apprehend either from loss of blood or peritoneal inflammation, I felt desirous to endeavour to relieve the woman by an operation; but was anxious to have the sanction of some other surgeon or physician besides my friend Dr Campbell, who at once offered to assist me. All whom I took to see the patient, and all to whom I sent her, said that the disease was an affection of the ovarium, but all of them condemned an operation. My patient, therefore, abandoned to her gloomy condition, called on me repeatedly, urging me to try the operation, otherwise she would do it herself. At last, as her pain became perfectly intolerable, and she was still urgent, I resolved to operate. During the preceding period I had directed my attention to the lumbar abscess, and applied caustic eschar after eschar. Wednesday, 24th October 1823, was the day appointed for the operation; therefore, on the day preceding, she took a dose of the compound powder of jalap, which operated also on Wednesday morning, so as to preclude the necessity of administering an enema; she also made water immediately before, in order to empty the bladder. The emptying of the rectum by a glyster, and the drawing off the urine, or taking care that the patient makes water, are circumstances of some consequence to be attended to, in all operations of the abdominal cavity. As inflammation appears to be induced generally by exposure to cold; and as these cases succeeded so well in America, I desired the room to be heated to 80° of Fahrenheit. When the temperature of the room had arrived at this heat, I placed the patient on a table, covered with a mattress, and two pillows supporting her head, and commenced the operation, in the presence of Dr Campbell, Dr Vallange, late surgeon of the 33d regiment, Mr Bouchier, surgeon of the

36th regiment, and several other medical gentlemen, by making a longitudinal incision, parallel with, and on the left side of the linea alba, about two inches from the ensiform cartilage, to the crista of the os pubis, through the skin and cellular substance, when the peritoneum appeared, the recti muscles being separated by the distension consequent on the present disease and former pregnancy. I then made a small incision through the peritoneum, introduced a straight probe-pointed bistoury, and made a more extensive opening, into which I inserted the fore and middle fingers of the left hand, so as to direct the instrument, and to protect the viscera. With this instrument I made the internal to correspond with the external incision, while my friend, Dr Campbell, who assisted me, endeavoured, but in vain, to confine the intestines within the abdominal parietes. Apprehensive of peritoneal inflammation, of which many said my patient would die, I enveloped the intestines in a towel dipped in water about 98°. I now proceeded to examine the state of the tumour, when, to my astonishment, I could find none. I next requested Drs Campbell, Vallange, and Bouchier, to make themselves satisfied that there was no tumour, when Dr Vallange observed that he felt a tumefaction on the left side of the pelvis. This, on investigation, was found to be a flattened tumour of no great magnitude, at the left sacro-iliac synchondrosis of the pelvis, lying beneath the division of the common iliac artery, into its external and internal branches. Having satisfied all present that this was not the tumour which was anticipated,—that it was impracticable to extirpate it,—and that the uterus and ovaria were perfectly sound and healthy, I proceeded to return the intestines, and to stitch up the wound, carrying the needle as deep as possible, and applying straps of adhesive plaster between the stitches. Compresses of lint were next laid along, and the nine-tailed bandage bound round the body. I then carried her to bed, and gave her an anodyne draught of 40 drops of laudanum, which was almost immediately rejected. Ordered her warm toast-water and tea.

When the intestines protruded, and baffled all the efforts of Dr Campbell and the other gentlemen to confine them, I shall never forget the countenances of my pupils and the younger members of the profession. This fact of the intestines being forced out, proves, along with others, that the lungs can be expanded although atmospheric air be admitted into the abdominal cavity; the diaphragm acted with great vigour and with powerful impetuosity. The operation was performed at one o'clock of the day, and by seven in the evening she had vomited twice; had flying pains in the abdo-

men, a little hurried breathing, pulse at 100, and some thirst; she also felt uneasiness from inability to void her urine, which was drawn off by the catheter; and, as a precaution, I bled her to syncope, which occurred when 11 ounces were abstracted. She lost little or no blood during the operation. An anodyne draught was given her, which was again vomited. Thursday morning, she had little or no sleep, still flying pains about the abdomen, particularly in the wound, with hurried breathing, and the pulse at the same rate; the skin felt hot, and the tongue was white and a little crusted, so that I repeated the bleeding to syncope, which occurred when 13 ounces were withdrawn. After the bleeding she felt easier, and by the evening these symptoms had disappeared; I ordered her five drops of the sedative solution of opium, which remained on the stomach, but produced no sleep: I allowed only toast-water, tea, coffee, and gruels, warm. On Friday morning she felt much better; was pained only once in the hour or so, her breathing was natural, her pulse 90, and soft, her skin cool and soft, and her tongue white and moist. The urine still required the employment of the catheter. The same low diet continued. At bedtime the sedative solution was increased to seven drops. Saturday morning, had a tolerable night, and felt considerably better; felt, however, a little uneasiness in the wound, which had not troubled her since Thursday morning; her pulse was 85, and soft, the skin natural, and tongue cleaner. Felt a little appetite, and took some ground rice with sugar. To-day I dressed the wound, and found the line of incision united from the one end nearly to the other; at the pubes there was a small portion everted; the adhesive straps were renewed, but the stitches were allowed to remain. She was allowed Panada, rice-pudding, or oatmeal porridge. At eight in the evening, she felt acute pain in the right iliac region, darting upwards; her pulse was 108, full, and strong; the skin hot, and some thirst. I therefore bled her to fainting, which followed after 16 ounces were abstracted. In an hour after a domestic enema was administered, and, lastly, the sedative solution of opium. The enema operated well, and she fell asleep. Sunday morning, after a good night, she felt greatly better; no pain of wound or abdomen, no thirst, and her pulse 90, and soft, her skin cool, and tongue much cleaner. The wound was dressed, and two stitches withdrawn. She was able this morning to make water naturally; in the evening she became uneasy, the enema was repeated, and the opiate omitted. Monday morning.—Had rested indifferently, and her pulse was 100, and feeble; skin rather hot, but tongue cleaner. Pressure on

the abdomen gave no pain. The wound was dressed, and all the stitches were withdrawn. An enema of castor oil was administered. Desired to have the oatmeal gruel acidulated with the supertartrate of potass. At 3 *p. m.* the enema had not operated, so that she was ordered two drachms of supertartrate of potass mixed with treacle, every two hours, till it should operate. By 8 *p. m.* the enema had operated, and brought away some feces, which gave her great relief. The pulse was 112, her skin and tongue natural, and quite free from pain. The supertartrate of potass continued. Tuesday morning, although she had slept well, and the physic had operated twice in the morning, the tongue and skin natural, and was perfectly free from pain, yet the pulse was still 112. The wound dressed; little or no discharge, and chiefly from the everted edge at the pubes. Ordered veal broth for dinner. Wednesday, eight days from the operation, had slept soundly; was free from pain; tongue and skin natural, and pulse down to 96, and soft. Ordered veal or chicken broth. She continued daily to recover from this day to Sunday, when, although the bowels had been carefully attended to, both by laxatives and enemata, yet they felt so distended as to excite much uneasiness and irritation. An enema was administered in the morning, and she took five grains of calomel, and in two hours after, half an ounce of the phosphate of soda; both of which producing no effect, the latter was repeated after two hours had elapsed. In the evening another enema was administered, which, as in the morning, brought away a considerable quantity of feces, but without relief. Two aloetic pills were therefore given every three hours, till six were swallowed, when no motion having been produced, a drop of the oil of croton was given, which in half an hour excited vomiting. One cathartic enema after another was given, till a profuse quantity of feculent matter was discharged, and then she felt relieved. From this day she gradually recovered, without any untoward symptom; sat up out of bed on Wednesday, fourteen days after the operation, and went to the country on Saturday the 16th October. She now lives in town, earning her livelihood as formerly, by binding shoes, but is often severely tortured with pain.

The reason why all of us were deceived in this women's case, was, the great obesity and distended fulness of the intestines, together with some protrusion pubic of the spine at the lumbar vertebræ. This did not at all appear conspicuous before operating, otherwise it should and must have struck some of the medical gentlemen who examined her; nor did it occur to myself during the operation, nor until some time after, when I could find no just cause for being so singularly deceived.

From this case, and those which I have enumerated, it appears to me that there is little danger to apprehend, in laying open the abdominal cavity; and that in diseased ovarium, extra-uterine conceptions, *fœtus in utero* with deformity of the pelvis preventing embryulcia, aneurism of the common iliac arteries or of the aorta, volvulus, internal hernia, cancer of the uterus, and foreign bodies in the stomach threatening death, we should have recourse early to gastrotomy. The delay in such cases is more dangerous than the operation. To show what freedom may be used in diseased ovarium, I have received, since writing the above, the following history of a case from my friend Mr Edward Scudamore, surgeon at Wye in Kent.

In 1821, A. C. 36 years of age, had been repeatedly the subject of *paracentesis abdominis* for ovarian or encysted dropsy, when fluid in increased quantities, and varying in quality in each operation, was drawn off. Her health declining, and her constitution resisting each effort to cure the disease, any proposition holding out the most remote hope was eagerly listened to. The trocar and canula were again introduced, the fluid drawn off, and the canula left with a plug inserted into its mouth. In a few days the plug was removed, and the accumulated fluid discharged, which operation was repeated for several successive times, after eight days interval between each. These attempts proving fruitless, and no irritation being produced by the canula, diluted port-wine was injected in one instance, and a solution of sulphate of zinc in the other; both of which merely produced a sensation of heat while they remained in the cavity. Many weeks elapsed after these operations, when the constitution gradually sinking, she expired.

III.

On the Muscularity of Arteries. By ROBERT HUNTER, Lecturer on Anatomy and Surgery, Glasgow.

THAT the arteries are endowed with a contractile power, and consequently can assist in the circulation of the blood, is a prevailing opinion, I believe, among physiologists. A few, however, of considerable reputation have questioned the truth of the opinion, and denied, *in toto*, the muscularity of arteries.

As the subject is of considerable physiological importance, I shall first examine the arguments that have been brought forward against the muscularity of arteries, and, *secondly*, men-