emetic, given in one-third grain doses every hour or two, with an occasional enema containing two teaspoonfuls of laudanum in thin starch. At 10 o'clock P.M., of the same night, there was no change in the state of the os uteri or in the parturient passages generally, except that, if possible, the heat and tenderness had increased. The pains, which now declared themselves in an almost continuous scream, during which the arms, hands, and fingers were extended and rigid, were still referred to the sacrum, and with greater intensity than ever. Her looks were altogether wild and expressive of extreme agony. I sent home, a distance of about four miles, for the long tube syphon, in the hope that the application of warm water, by this instrument, might aid the other means already had recourse to in effecting the dilatation of the os uteri; but before its arrival, one of the females in attendance came wishing me to go to her immediately, as she said "the pains had all gone to her head, and that she was getting delirious." Indeed, I had been fearing that if this state of matters continued much longer, either rupture of the uterus, delirium, or convulsions would soon take place. I had no chloroform, otherwise I would have used it, and the case was one in which ergot of rye was quite inadmissible. This state of matters led me to think of a lecture on tetanus by Dr. Todd, in which he states his own and Dr. Bowman's theory on that disease, to the effect that a state of tension or polarity is set up in the peripheral extremity of a nerve, this is transmitted to the spinal cord, and thence by conduction to the medulla oblongata. Here was the os uteri and vagina in a state of extreme hyperæmia and hyperæsthesia, and the pain referred entirely to the sacrum, a sufficient physiological proof, in my estimation, that the former receives its chief supply of cerebro-spinal nerve fibres from the sacral plexus, while its almost tetanic rigidity in this case, and the well known fact of its being frequently felt to contract during expulsive efforts of the body of the organ, may be regarded, I think, as also a sufficient physiological proof, even were anatomical evidence wanting, that the os uteri is made up of circular or sphincteric muscular fibres, the particular use of which I need not here stop to inquire.

Probably the hyperæsthesia in this case, and so frequently met with in parturient females, was due to toxæmia, which, according to Dr. Cormack, is, from mechanical and other causes, apt to be present in all parturient females, but especially in primiparæ.

With the view of relieving the hyperæmia, I planted a large tumbler on each side of the seat of pain, and one immediately above the coccyx. This measure immediately altered the complexion of the case. The unnatural screaming was instantly given up; the pains became at once of the natural, down-bearing description. I examined, and found the os uteri widely dilated; the vagina cool, and abundantly lubricated; and, in less than half an hour, the child was expelled. It was weak and long in breathing, and died in about three hours, no doubt in consequence of the continued compression to which the placenta had been subjected between the child's breech and the uterus.

By a Periscopic Review in the ASSOCIATION MEDICAL JOURNAL for 1853, p. 469, I see that this practice has also suggested itself to an American physician, and that he considers the effects of dry cupping as analogous to those of ergot; but from the experience I have had of both, I should think that their actions could not be more diametrically opposed. The ergot of rye seems to produce almost uninterrupted contractions of the whole muscular structure of the uterus; and if given before the os is sufficiently dilated, or during an irritable state of the os, it will induce greater contraction of its circular or sphincteric fibres, than of the longitudinal, or, more properly, expulsive fibres, distributed to the body of the uterus. Whereas powerful dry cupping has seemed to me in every case to lessen the irritability, and diminish the action of the sentient and motor fibres of the nerves supplying the os uteri, vagina, and os externum, thereby taking off the resistance opposed to the expulsive fibres; in fact, doing away with the resistance to the peristaltic action of the uterus, and the associated expulsive efforts of the

abdominal and other accessory muscles and organs concerned in the parturient process.

From the effect of dry cupping in the case above detailed, and in many others which I could adduce, I would conceive that its action is precisely analogous to that of chloroform, with this exception, that whereas chloroform influences the whole nervous system, dry cupping acts as local derivatives and anæsthetic. I have since used it with similar benefit in cases where previous labours were always tedious and difficult. It seems to me, also, that some discrimination is necessary to be observed, as to the time at which the cups are to be applied; for, if had recourse to before the peristaltic action of the uterus is sufficiently established, it will tend to retard that process. And from the consideration of this fact, I was first led to have recourse to dry cupping in cases of threatened abortion. And here I have found it of great value, instantaneously checking its progress. Several cases by this means have progressed to a favourable termination, wherein the disposition to abort had, by frequent repetition, been previously established. By those who hold that labour is a natural process, and ought not to be meddled with, such treatment as I have mentioned above may seem superfluous; but as labour, as well as many other natural processes, is subject to a variety of perversions during its progress, it seems to me equally suitable for active treatment. Take, for example, painful digestion, or, in short, any other abnormal condition existing in the performance of an organic function.

The propriety of adopting active measures to remedy perversion of function in the stomach, liver, heart, or, in short, any of the organs connected with circulation, respiration, or digestion, is never called in question. Why, then, have any scruples about the *treatment* of labour, when any derangement in its progress is perceived?

In conclusion, I may mention, as good proof of the efficacy of dry cupping in labour, that I have never yet employed it without receiving the decided approbation of the patient.

Inverkeithnie, N. B., December 26, 1853.

ON EXCISION OF OVARIAN TUMOURS.

By JOHN ERICHSEN, Esq., Professor of Surgery in University College, and Surgeon to the Hospital.

[Read before the North London Medical Society, Dec. 1853.]

THE question as to the propriety of extracting ovarian tumours is one on which professional opinion is so much divided, and, at the same time, is of such great practical importance, that I have thought it might not be altogether uninteresting or unprofitable to bring before this society the particulars of a case on which I lately performed that operation with success, and to make a few remarks on some of the more important points connected with this operation in the hope of eliciting the opinions of the experienced practitioners whom I see around me. The case that I refer to is as follows.

CASE. On the 3rd of Sept. last I was requested to meet Dr. Murphy and Mr. Stewart in consultation on a lady, who was the subject of an ovarian tumour. The patient was sixty-five years of age, tall, thin, and pale; a resident of Thetford, in Norfolk, a widow, without children; never having been pregnant, and indeed having married too late for gestation; the general health was good, but delicate. The history of the first appearance of the tumour was obscure. It was probable that it had existed about two years, but it was only during the last few months that it had become so manifest as to attract much attention. During the last three or four months she had been losing flesh rapidly, her appetite had diminished, and she perspired at night. She felt herself growing weaker daily; and, attributing her ailment to the increasing growth of the tumour, had determined upon its removal, and had come up to town for that purpose.

On examination, the abdomen appeared fully as large as at the ninth month of pregnancy, being protruded by a large tumour, which could be felt to occupy the greater part of the anterior portion of this cavity; on the right side, this growth was hard and solid to the feel, and extended from the pelvis to under the cartilages of the ribs in the hypochondriac region; and on the left side it was elastic and semifluctuating, and reached to a line about an inch above the umbilicus. It was readily moveable to and fro; ascended and descended during the respiratory movements; and allowed the abdominal wall to be moved upon it, though with some dry crackling sensation about the umbilicus. The pelvic organs did not appear to be attached to the tumour; the uterus being floating, as ascertained by the introduction of a sound, and the vagina being normal in its position and shape.

The operation for extraction of the mass having been determined on as the only means of relief, was performed by me on the 6th of September, in the presence and with the able assistance of Dr. Murphy, and Messrs. Stewart, Statham, H. Thompson, Clover, and English.

The room having been warmed to a temperature of 80, the patient was brought under chloroform, and laid on a table of convenient height, covered with doubled blankets, so that her legs hung over the end of it; the bladder was then emptied with the catheter; the bowels had been cleared out by a purge on the preceding day. The operation was commenced by an incision about five inches in length, made in the linea alba from the umbilicus downwards. The tissues having been carefully incised, and the peritoneum opened, the tumour presented itself. Into the part on the left side that was soft and fluctuating, a large trochar was introduced, and about a gallon of very thick, pasty, dark coloured fluid was drawn off; the hand was now introduced into the cavity of the abdomen, and the more solid part of the tumour, which extended high up on the right side, lying against the liver, was drawn down and brought out through the wound. In doing this, a few adhesions that were found between the anterior abdominal wall and the tumour were broken through. The mass, which was of considerable magnitude, was now lifted out of the abdomen, the intestines being protected and pressed back with soft warm cloths, and was found to be connected by a broad attachment to the right broad ligament. This pedicle was short, wide, and composed principally of large blood-vessels with some connecting cellular tissue. It was drawn well forward. A *nævus* needle armed with stout whipcord was passed across it, care being taken to avoid any of the blood-vessels. The peritoneal investment of the pedicle was then dissected off to the extent of about a quarter of an inch in breadth all round, and the whipcord ligature firmly tied on either side along this line. The tumour was then detached by cutting across the pedicle half an inch above the ligatures.

The wound was now closed by a series of interrupted sutures closely applied, and at the lower part by two *hare-lip* pins with figure of 8 sutures; round these, the ligatures on the pedicle were firmly twisted, so that its cut stump projected out of the abdomen between the lowest pin and the inferior angle of the wound. The abdomen was then supported with cross strips of plaister and a bandage.

The tumour weighed about sixteen pounds. The solid part amounted to nine pounds, and the liquid, of which there was about a gallon, probably to seven or eight more. It was a compound cystic growth, not malignant.

The patient was now put to bed in a warm room, with the knees raised; she was allowed nothing but ice, and put on opiates, taking four minims of the black drop every second or third hour. The urine was drawn off. Recovery took place without a bad symptom. The ligatures of the pedicle were separated, and its stump sloughed out by the eighth or tenth day, when the pins were removed; the points of suture were taken out as they loosened, or gave rise to irritation; the abdomen being kept well supported by bandages and plaisters. The patient was enabled to leave her bed by the sixteenth day; during the whole of the treatment up to this period, she was kept on slops, such as

barley-meal, beef-tea, and jellies, and the bowels were allowed to continue confined until the fourteenth day, when they were opened by enemata. The patient has since gone into the country, and is now, I believe, in perfect health.

REMARKS. I have given this case in some little detail, as it illustrates well the surgical management to be adopted. The principal points in the operative procedure that, in my opinion, require attention are, in the first place, to regulate the length of the incisions to the size and nature of the tumour. The more fluid the tumour, the less extended need the incision be, as much of the growth may be lessened by tapping. As the solid part of the mass must necessarily be extracted entire, this will require an incision for its abstraction proportioned to its magnitude and shape. Hence I think it wise for the surgeon not to advocate either the small or the long excision exclusively, but to be guided by the nature of the tumour he has to deal with.

The ligature of the pedicle is an important point, as, unless this be properly practised, there will be no inconsiderable risk of the supervention of secondary hæmorrhage. It is, I think, best done by transfixion with a *nævus* needle, carrying a whipcord ligature, and tied on either side as tightly as possible. The dissection downwards of that portion of the peritoneal investment of the pedicle across which the ligature is tied, appears to me to be of much importance in preventing the constriction and sloughing of the otherwise included line of serous membrane, and will thus lessen the danger of peritonitis. It is a part of the operation, however, attended by some risk, from the chance of wounding the blood-vessels, which are here thin walled, and large; but this may be avoided by careful manipulation. After tying the pedicle, it is of considerable moment that the ligatures should not lie in the peritoneal cavity, and that the stump of the pedicle should not slough off within the cavity of this membrane; as, under either circumstance, peritonitis of a severe or fatal character would probably ensue. All this is best avoided by drawing the pedicle well forward, so as to project above the wound, and attaching the ligatures firmly to the *hare-lip* pins with which the lower part of the line of incision is closed.

The *after treatment* presents nothing peculiar, but is that which is now very generally adopted in abdominal wounds, and was, I believe, first introduced in these cases by Dr. F. Bird. It consists in keeping the patient in a warm room, giving a liberal supply of ice, with opiates to tranquillize the system and arrest peristaltic action, drawing off the water and not attempting to relieve the bowels, which may be left confined for many days without inconvenience to the patient.

In considering the subject of ovariectomy, two questions present themselves. 1. As to whether the operation is a sound one and ought to be retained in practice; and 2. If retained, in what class of cases it should be had recourse to?

In answering the first question, we must refer to the course that is taken by ovarian tumours, and to the result of the operation as deduced from published cases.

The course taken by ovarian tumours necessarily varies greatly. In some instances, these growths do not appear to be incompatible with prolonged existence and a fair share of health. In other instances, again, after remaining quiescent for some length of time, they assume considerable activity of development, and interfere so seriously with the other abdominal organs and with the general operations of the economy, that life is attended by great misery and discomfort; and in a third class of cases they rapidly and steadily run their course to an unfavourable termination.

After a time, in the majority of instances, the tumour may be materially lessened in bulk by tapping; but when once this operation has been had recourse to, it will require to be repeated with increased frequency, the intervals between each succeeding tapping being diminished; and then a fatal termination at a comparatively early date may usually be looked for. Mr. S. Lee states that of forty-six patients who were tapped, thirty-seven died, and only nine recovered, and that of the thirty-seven who died, more than one half did so in four months from the first tapping, twenty-seven out of

the thirty-seven in the first twelve months, and of these eighteen were only tapped once.

The objection has been raised against ovariectomy, that the mortality from it was so high as not to justify a surgeon in performing it. Undoubtedly, a very high rate of mortality after an operation would constitute a serious bar to its performance; and the more so, if it could be shown that the disease for which it was practised was not a necessarily fatal or even a very serious one. Thus, Mr. Phillips has collected the particulars of 61 cases in which ovarian tumours were extracted: of these, 35 were successful, and 26 died. Mr. Lee gives 90 cases; of these, 57 recovered, and 33 died: and Dr. Robert Lee, the most recent writer on the subject, has collected 102 cases of ovarian extraction, of which 60 did well, and 42 terminated fatally. From these statistics, it would appear that the mortality after the removal of ovarian tumours amounted to rather more than one in every three cases. This rate appears to me not to be excessive, when we compare it with the result of operations for various severe surgical injuries or diseases.

The next question that occurs in connexion with ovariectomy is as to the class of cases in which it should be practised. Now here we come upon ground in which much difference of opinion must necessarily exist. Ought ovariectomy to be performed in all cases, or even in the majority of instances of ovarian disease; or ought it to be limited to a few and exceptional cases, and practised as a last resource?

The most ardent advocate for this operation will scarcely, I think, advise that an attempt should be made to extract the ovary from every woman labouring under tumour of this structure; but would rather recommend the employment of palliative treatment, until the growth had begun to interfere seriously with the comfort of existence, or with the healthy action of the abdominal organs. When these injurious effects of pressure have once fairly begun to manifest themselves, the patient wasting, suffering much discomfort from her size, with difficulty in breathing, repeated vomiting, gastric irritation, etc., then the question of relief by operation will necessarily obtrude itself, and must be discussed dispassionately and without prejudice. Under these circumstances, I confess I see no chance of giving the patient relief, or of prolonging her existence, except by the removal of the tumour. Medical treatment is of no avail in such cases, and tapping only gives temporary relief, and will eventually, and often very speedily, wear out or destroy the patient. Under such circumstances, therefore, we must either leave the patient to her fate, or have recourse to the ablation of the tumour, which, it has already been shown, may be done with the prospect of success in nearly two cases out of every three.

So far then as the strictly *surgical* aspect of this question is concerned, I should say that as the recoveries after this operation amount to at least 60 per cent., it is proper for the surgeon to propose and to perform it when all other means of relief have failed, and when the patient's health is giving way under the extension of the disease.

There is one aspect under which we have not as yet considered this matter, and which has a most important bearing on the operation. I mean in its *diagnostic* point of view. This, which may with justice be termed the *medical* part of the question, and may be considered as belonging rather to the province of the physician than to that of the surgeon, has to be considered in two of its bearings: 1. As to the existence of such adhesions between the enlarged ovary and the other abdominal organs as to render the extraction impossible; and 2. The diagnosis between ovarian and other abdominal tumours.

The existence of such adhesions between the ovarian tumour and the abdominal viscera, as will prevent the possibility of its extraction, is of frequent occurrence, having been met with in rather more than one-third of the whole number of cases operated on; according to Dr. Lee, in 60 out of 162 cases. The frequency of the occurrence of this complication renders its diagnosis one of extreme importance. Its existence may in general be *suspected*, when it

is ascertained that the patient has been the subject of attacks of peritonitis, when the abdominal tumour does not appear to change its position on the patient taking a deep inspiration, and then expiring freely; and when, on the patient's raising herself into the sitting posture, the sac does not tend to move forwards into the space between the recti muscles. So also much light may be thrown upon this important point by ascertaining the existence of a crepitant or crackling sensation between the anterior abdominal wall and the tumour; and more particularly, if when the tumour is tapped, it draws down over it the abdominal parietes or sinks into the pelvis without exercising any traction on those parts. The condition also of the pelvic viscera—viz., the bladder and uterus—as ascertained by examination with the sound, may tend to show whether connexions exist in this quarter or not.

By such examinations as these, the presence of adhesion may doubtless in many cases be suspected; but in other instances, and more particularly when the mass is bound down posteriorly, there is no possibility of determining this point, and then the surgeon may, to his great annoyance, find that after laying open the abdomen, the operation cannot be completed, and the tumour requires to be left. In those cases in which there is any reason to suspect the presence of adhesions, it is, I think, a wise precaution to make a small exploratory incision into the abdomen, through which the fingers or hand may be introduced, and the connexions of the tumour examined. If these are too extensive to admit of removal, the aperture may be closed, and possibly the patient may escape without any very serious consequences ensuing; as in these cases the peritoneum has in a great measure lost its character as a serous membrane, and is not so susceptible of the diffuse and destructive forms of inflammation that would otherwise be likely to occur in it.

The diagnosis of ovarian from other abdominal tumours, falls so entirely in the province of the physician, that I do not feel myself prepared to enter upon it; but would prefer leaving that point to be elucidated by those members of the Society who have paid special attention to this subject.

London, January, 1854.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

SATURDAY, JANUARY 7TH, 1854.

FORBES WINSLOW, M.D., D.C.L., President, in the Chair.

DIFFERENCE IN SALUBRITY OF THE EAST AND WEST LOCALITIES IN TOWNS. BY T. JUNOD, M.D.

Dr. JUNOD observed, that the west part of towns is generally most healthy, and therefore is more inhabited by the rich. He attributed this in part to the greater salubrity of the westerly winds, which, having passed over the sea, contain more watery vapour, so that the smoke and various noxious gases cannot readily become diffused through the air. He suggested that, in the building of houses and streets, the medical man should be enabled to give advice as to the best situation and aspect, and especially with regard to cemeteries, slaughter-houses, etc., which should be confined, he thought, to eastern districts.

LITHOTRITY IN A PATIENT AGED EIGHTY-THREE.

BY W. COULSON, ESQ.

Mr. COULSON exhibited the bladder of a man aged 83, who had been lithotritised forty-eight times in the course of twenty years. He had, some months ago, been operated on in St. Mary's Hospital, by Mr. Coulson, and apparently recovered; but he died soon after his return into the country. On the right side of the bladder was a small calculus, seated in a sac, round which the bladder was contracted. Mr. Coulson had been able to reach the surface of the stone with the lithotrite, but could not effectually apply the instrument.

Mr. Coulson observed, that relapses are more frequent after lithotrity than after lithotomy; and that sufficient attention has not been paid to the state of the urine after the former opera-