A plea for exploration in suspected malignant disease of the ovary : with illustrative cases : being the Ingleby lectures for 1904, delivered at the University of Birmingham, May 10th and 17th, 1904 / by Charles J. Cullingworth.

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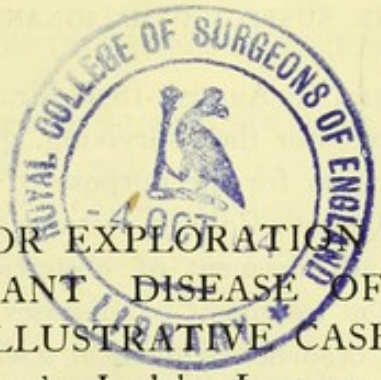

A PLEA FOR EXPLORATION IN SUSPECTED MALIGNANT DISEASE OF THE OVARY, WITH ILLUSTRATIVE CASES,

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LECTURE I.

ONLY once, I believe, before the present occasion, has a stranger been invited to deliver the Ingleby Lectures. It must therefore be regarded as an exceptional honour, and I assure you that I appreciate it accordingly.

In connection with many benefactions of a kind similar to that of the Ingleby Lectures and scholarships, one of the conditions named is that, on a certain annual occasion, the name of the benefactor and the nature of the benefaction shall be publicly commemorated. There is no such condition attached, I believe, to the Ingleby trust; but, as it seems to me desirable to keep its founder in continual and grateful remembrance, I purpose devoting a few moments, before passing on to the subject proper of my lectures, to setting forth the main facts connected (1) with the origin of the trust, and (2) with the life and work of the distinguished obstetrician whose memory it was the object of the founder to perpetuate.

First, then, in regard to the origin of the trust, it appears that under the will of the Rev. Charles Ingleby, of Oakamoor, near the small market town of Cheadle in Staffordshire, only son of the late John Tomlinson Ingleby, M.D., of this city of Birmingham, the residue of the estate was bequeathed to the executors to be distributed by them amongst such institutions of a religious or other charitable nature as they might in the exercise of their discretion think fit. The testator died on the

11th of June, 1873, and in August, 1876, Mr. George Paulson Wragge, the only executor then surviving, gave, out of this trust, the sum of £2,000 for the purpose of establishing, in connection with the Queen's College, lectures and scholarships for promoting the advancement of obstetric medicine and surgery, including the treatment of diseases of women and children, these being branches of medical science in which the testator's father had acquired considerable reputation. Trustees were accordingly appointed, and a declaration of trust duly executed under date August 18, 1876. It was provided that in each year one or more lectures on the subjects above specified should be delivered at Queen's College by such person as the Council should appoint, and that the lecturer should receive an honorarium. It was also stipulated that these lectures, which were to be called the Ingleby Lectures, should be free to all members of the medical profession and to all students in the Birmingham Medical School. Further, two money prizes, which were to be called the Ingleby Scholarships or prizes, were to be awarded, after examination, to students in the medical school of the College of two years' standing or upwards for proficiency in obstetric medicine and the diseases of women and children.

In 1892 the medical and dental departments of Queen's College were taken over by Mason College, since merged in the University of Birmingham in which the Ingleby Lectures are now delivered and the Ingleby prizes awarded.

Who was Dr. Ingleby whom it was the object of this foundation to commemorate? The few facts known about his life and work* can easily be summarised. He was born at Cheadle, in Staffordshire, on the 7th of March, 1794, one year, as Dr. Foxwell has reminded us, after the death of John Hunter. He served a five years' apprenticeship to Mr. Bourne, a medical practitioner of his native place, completing his medical education in London and Edinburgh. In 1816 he commenced practice in Birmingham. An Edinburgh fellow-student of his (Dr. Eccles) had determined to do the same. It is related that the two men, without previously knowing anything

* *Medical Times*, Vol. XI., 1844-5, pp. 409 to 411, and Introduction to Foxwell's first Ingleby Lecture for 1892 in the *Birmingham Medical Review*, May 1892, pp. 257-61.

of each other's intentions, travelled to Birmingham on the same day and by the same coach. Eccles afterwards became Professor of Medicine in Queen's College, and Ingleby Professor of Midwifery. The first appointment that Ingleby obtained was that of Surgeon to the Birmingham General Dispensary, a post which he held for twenty-four years (August 12, 1816, to January 25, 1840). When, in 1828, the Medical School was formed, he was chosen to lecture on midwifery, and in 1834, when the school made a fresh departure as part of Queen's College, this appointment was ratified. "At this time," says Dr. Foxwell, "each lecturer defrayed a portion of the expenses incurred in the delivery of his course, and received no emolument, but in 1836 this variable amount was transmuted to a fixed payment by the lecturer, which, in the case of Mr. Ingleby, was £14 yearly. He lectured at a quarter before eight on the first five mornings of the week, his course consisting of sixty lectures. This post he held until his death, but in 1838 his increasing practice obliged him to petition for assistance, and in 1839 Dr. Berry was appointed to help him." From 1829 to 1843 he also held the post of Surgeon to the Magdalen Asylum.

As an obstetric practitioner, his position in the provinces is said to have been for some time unrivalled. He had a very nervous and excitable temperament, and probably in consequence, though very successful in the conduct of his cases, he was timid and anxious at the bedside. A dangerous case spoilt his appetite, deprived him of sleep, and filled his mind with apprehension. Yet he allowed himself little rest and no relaxation, and during the later years of his life he is said to have lived "at the bedside and in his carriage." Those who knew him marvelled how he endured the incessant fatigue to which he exposed himself, and it was generally thought that the illness which terminated in his death at the comparatively early age of fifty had its origin in the excessive mental strain and bodily fatigue of his laborious practice. He was very gentle, very sympathetic, and full of old-world courtesy. He was never heard to speak disparagingly of a fellow practitioner, and, indeed, in consultation he is said to

have been deferential almost to a fault. His published works comprise "A Practical Treatise on Uterine Hæmorrhage in connection with Pregnancy and Parturition," printed in 1832, and a series of essays, entitled "Facts and Cases in Obstetric Medicine." This latter bears no date on the title page, but, inasmuch as it is dedicated "to those gentlemen who during the last nine years have attended the obstetric lectures at the Birmingham Royal School of Medicine," and as the school was instituted in 1828, it was evidently published somewhere about the year 1837. The subjects of the essays are as follows:—On puerperal convulsions; on malposition of the uterus, ovaria, bladder, and urethra, both in the impregnated and unimpregnated states in connection with retention of urine; on obstructions in the soft parts to the progress of labour; on the induction of premature labour in cases of organic disease; on laceration of the uterus and vagina; on inversion of the uterus; on the signs and symptoms of pregnancy and their complications; and on the signs which denote the extinction of life in the fœtus. Of the seven sections into which the book is divided, the first three and part of the sixth and seventh were already in print, but now appeared in a revised and greatly enlarged form. The fourth and fifth sections were entirely new.

Besides these books, Dr. Ingleby published several articles in the *Edinburgh Medical and Surgical Journal* between the years 1835 and 1840, which to Birmingham men have the additional interest of having been admirably illustrated by Mr. Alfred Baker; and also a course of clinical lectures, delivered in the session 1842-3, which appeared in the columns of the *Lancet*. At the time of his death he was arranging for the press a series of facts and cases illustrative of fibroid tumours of the uterus, which he believed to be much more common than was supposed. These writings spread his reputation far and wide, and obtained for their author the recognition of the University of Heidelberg, which granted him a degree in medicine, and of the Royal College of Physicians of Edinburgh, which conferred upon him its Fellowship. Dr. Foxwell, in his Ingleby Lectures, delivered

in 1892, has called attention to the excellent style that characterises all that Ingleby wrote. "The language," he says, "approaches that peculiar character which we so greatly love in Trousseau and Watson. It is not eloquent in the usual acceptation of the term; there is no profuse verbiage, nor resounding phrase; but there is something better. Dr. Ingleby's words," he continues, "are well chosen and to the point; his language is concise and yet not cramped; it reminds one of the placid leisure of the study armchair, where each sentence is lovingly thought out with the aim . . . . of putting what he has to give you in the best possible dress, and yet you seem ever pervaded with the calm reticence of much learning and keen observation. It is in the relation of cases that he appears to most advantage. These he places before you with such simple directness, such calm, unexcited realism, the salient features alone being sketched in, that you seem to be at the bedside of his patient listening to his exposition rather than reading it from a sixty-year-old book." This is high praise, but, having made it my business in view of the present occasion, to read Ingleby's books, I can say that, in my opinion, it is not by any means extravagant. And then, as to the matter of these writings, although they cannot perhaps be said to bear the impress of any striking originality, they are evidently the outcome of close personal observation and of a sound judgment, and appear to have fairly reflected the best opinions and the best practice of the time.

Dr. Ingleby was the first specialist in obstetric medicine in Birmingham. No one in this city, before his time, had devoted himself in the same special manner to the study of midwifery. This was not his only innovation. For, in the winter of 1840-41, he gave a course of lectures to the practitioners of the district, and so foreshadowed, as Dr. Foxwell has pointed out, what we are now so familiar with under the name of post-graduate instruction. As a lecturer, he is said by a contemporary biographer to have been "neither eloquent nor fluent, but always in earnest" and able to rivet the attention of his class. "In description and detail," he says, "few could excel him."

It is evident, in short, that Dr. Ingleby fully merited the honour done to his name in the foundation of this lectureship and of the scholarships that form part of the trust; for his undoubted pre-eminence in obstetrics, both as a lecturer, as a writer, and as a practitioner, conferred upon the Birmingham school a great reputation in that branch of medicine, just as, in later times, the pioneer work of a great Birmingham surgeon gave it an even greater celebrity in the kindred subject of gynæcology.

In deciding upon a subject for these lectures, it seemed to me that I ought, if possible, to utilise some of the clinical material with which an experience of more than thirty years of active professional work, both in hospital and private practice, has furnished me. In a paper published so long ago as the year 1887, I expressed the opinion that "whoever accepts a hospital appointment undertakes grave responsibilities, not only to the institution he serves but to the profession of which he is a member, and that not the least of the responsibilities that come under this latter head is that of making public from time to time the results of his hospital experience and of endeavouring to present them in such a shape as will make them useful to his professional brethren." Being still of this opinion, I am about to narrate to you, and comment upon, a group of cases which greatly impressed me at the time of their occurrence, and which, if I can at all succeed in presenting you with a true picture of them, may serve to illustrate certain difficulties in the diagnosis and treatment of ovarian tumours. I believe that in this way I shall be interpreting my duty as Ingleby Lecturer in the manner Ingleby himself would have desired me to interpret it, for the preface to one of his own books opens with these words: "A faithful record and an extensive collection of well-authenticated cases afford the only means of advancing the progress of our knowledge in medicine."

It is a trite observation that one learns more from one's mistakes and failures than from one's successes. Impressed with the truth of this, the editor of one of our professional

journals established some years ago a column for confessions. He was one of the shrewdest of men, but, in this instance, he had not sufficiently taken into account the obstacles in the way, and the project proved a failure. It is almost too much to ask of human nature, under *any* circumstances, to publish for the warning of others the details of professional blunders; but when those blunders have been committed by men with whom habitually rest the issues of life and death, and when, if the writer happen to be identified, serious and irreparable damage may, and probably will, be inflicted on his professional reputation, it is surely idle to expect confessions to pour in week by week in sufficient number to fill a certain allotted space in a weekly journal. Anyway, the scheme came to nothing, and, in my opinion, was bound to do so. Medical confessions involve matters much too doubtful and dangerous to be frequently indulged in. Nevertheless, I am myself about to enter the confessional, and to tell, amongst other things, some of my own mistakes both of diagnosis and treatment. I will reserve comments until I have related the cases.

The first case to which I will call your attention is that of the wife of a medical practitioner, who was under my care in the Hospital for Invalid Gentlewomen in Harley Street. The patient's husband had been paralysed for some years, and was an inmate of a hospital for incurables. In consequence of this, the patient herself had to earn her living, which she did by keeping a boarding-house. She was admitted to the hospital on the 23rd of April, 1891, being then forty-one years of age. She had one child, a young man of twenty-two. After her confinement she had had an illness of several months' duration, accompanied with severe pain in the left groin and down the left thigh. During the succeeding years she had from time to time suffered from excruciating pain in the left groin, having on several occasions been laid up for a period of some weeks. These attacks were said to be due to congestion of the ovary. On her return from South America seven years previously she had been stated by a London gynæcologist to be suffering from ulceration of the womb, and had been under treatment by him up to the time of his death three

years subsequently. Three years before her admission she had had a serious illness, and had been seen in consultation by an obstetric physician who thought she was suffering from cancer. During that illness she had great pain in the left iliac region, and a profuse yellow vaginal discharge. For three weeks she is said to have been delirious. As soon as possible, she was removed to the Harley Street Hospital, where she remained for four and a half months. Her case by this time appears to have been regarded as one of fibroid tumour. She was again admitted to the hospital in April, 1890, and remained in for a month, suffering from pain in the same situation as before. After that she was fairly well until about two months before her admission for the third time (on the 23rd of April, 1891), when she again began to suffer severely. She now for the first time came under my care. For the past three weeks she had been increasing rapidly in size. The abdomen when I first saw her was greatly distended with fluid, the girth measuring thirty-eight inches and three-quarters. The uterus was normal in length, and was displaced backwards. To the right, and in front of it, could be felt a sharp hard nodule above the vaginal roof.

On the 4th of May the abdomen was opened in the middle line by a short incision, and fifteen pints of ascitic fluid were removed. Lying centrally situated in the lower part of the abdomen, immediately in front of and closely connected with the uterus, was a cystic swelling, on the exterior of which were patches of proliferating growth resembling in appearance boiled sago. The pelvic viscera were densely matted, and it was impossible to differentiate them. Except that a small cyst which was accidentally ruptured was for the most part cut away, nothing was removed. The abdomen was closed under the belief that the patient was the victim of malignant disease, and that further interference under the circumstances was unjustifiable. For a few days the patient lay in a condition of somewhat alarming exhaustion. She then gradually improved, and was able to leave the hospital on the 19th of May. On May 29 I had an opportunity of examining her, and failed to detect any return

of the ascites. I saw her again on the 24th of July. She had for some weeks been doing a very heavy amount of house work, having had to attend upon seven boarders with the help of only one servant. She had gained flesh, but suffered a good deal of pain. The centrally-situated tumour, tender, elastic, and globular, was very conspicuous, and extended upwards to the level of the umbilicus. There was, however, no return of the ascites, and I began to doubt the correctness of my diagnosis. I advised her to arrange to come into the hospital as soon as possible for the purpose of a further exploration. She was re-admitted into the institution at No. 90, Harley Street, on the 1st of October, 1891, and on the 12th of October, with the assistance of Mr. Pitts, I re-opened the abdomen. The cyst was densely adherent to the scar of the previous incision, and, indeed, to all the parts around, including intestines. The intestines were slowly and carefully separated. In consequence of the density of the anterior adhesions, it was thought the best course would be to empty and drain the cyst, stitching the edges of its opening to the abdominal incision, now enlarged to a length of five inches. On passing the finger into the cyst, however, it was found full of proliferating growth, and it was evident that the only chance of doing any good by the operation was to remove the whole, if possible. This was accordingly proceeded with, the operation lasting nearly three hours. Several times the intestines seemed on the point of giving way. In one place a patch of intestinal wall, denuded of peritoneum, was closed in with fine sutures. In other places small portions of the cyst wall were cut off and left adherent. At last, its connection with the left uterine appendages was reached, and the main mass was tied off and removed. A considerable portion of thickened peritoneum from the anterior abdominal wall was unavoidably removed with it. Towards the close of the operation the patient became alarmingly collapsed. The abdominal cavity was quickly douched, cleansed, and stitched up, a glass drainage tube being inserted at the lower angle of the wound. This was removed in forty-four hours. The details of the post-operative period need not detain us. The symptoms during

the first few days caused grave anxiety, the pulse varying in rapidity during the first forty-eight hours from 136 to 160. The temperature never exceeded 100 degrees. A quantity of extremely foul discharge consisting of pus and blood, to the extent of about 8 fl. oz., escaped during urination in the evening of the 20th. It was uncertain whether this came from the vagina or the bladder. But the following morning a catheter was passed, and a considerable quantity of pus came away with the urine. No special symptoms preceded this occurrence or followed it. On the 24th a grape-seed and a little fœcal matter were detected in the urine. On the 31st the urine finally ceased to give off an offensive odour, and on the 7th of November the patient left for Eastbourne, feeling well and in good spirits.

She survived the operation for ten years, during most of which time she was well enough to lead an active and useful life. She suffered, as might have been expected after such an operation, from habitual constipation, and there was, at times, considerable irritability of the bladder. In the early part of 1898, seven years after the operation, she took charge of a private nursing home at Sheffield, and remained there in the capacity of matron for three years. Her health then began seriously to fail, and, after being for some time under the care of Dr. John W. Martin at Sheffield, she removed to London, where she died on the 12th of December, 1901, with symptoms of intestinal obstruction. The cause of death was stated on the certificate to be carcinoma. There was no *post mortem* examination, however, and the patient's nephew, a medical man and hospital surgeon, in whose house she had for some time made her home before leaving Sheffield for London, does not appear to have suspected cancer, and thinks it very unlikely that death occurred from that cause.

However that may be, the case possesses much interest. Besides illustrating the desirability of early operation in all cases of new growth connected with the ovary (and early operation had, I believe, been suggested in this case by the patient's own husband), it shows that one should not, even after the abdomen is opened, too readily condemn a patient

as beyond relief. But my main reason for narrating it here to-day is because of the part it played in the treatment of a much more satisfactory case that came under my care about the same time. The case I allude to was that of a patient named Mrs. A., who, having formerly lived in Manchester, and having there known something of me, sought me out at St. Thomas's and obtained admission under my care in August, 1890. She was at that time thirty-six years of age, and, having for some years been separated from her husband, had maintained herself by keeping a small newspaper shop in the city. She had suffered for six weeks before her admission from recurrent attacks of sharp pain in the lower part of the abdomen and the back, especially severe when the bowels acted. During the latter part of this time she had noticed an abdominal swelling, uniform, hard, and progressively increasing in size.

There was nothing unusual in her menstrual history. She had been married at the age of twenty-one, and had given birth to one child within a year of her marriage, labour being quite natural. The child died when two years of age, and when the patient was about three months advanced in her second pregnancy. Apparently as a result of anxiety and grief, hæmorrhage commenced from the time of the child's death, and, after continuing for a month, ended in a miscarriage. After the miscarriage she was subject to irregular hæmorrhages, sometimes profuse, for a period of twelve months, after which menstruation became regular and even scanty. At the time of her admission to St. Thomas's the abdomen was uniformly prominent, the relations of dulness and resonance over the abdomen varying considerably from day to day. No direct evidence of the presence of fluid was obtainable. The legs were slightly œdematous. In a week from the time of admission the prominence of the abdomen had almost entirely disappeared. The patient was then examined under anæsthesia, and there was discovered in the right iliac region, just external to the inner border of the psoas and iliacus, a hard, elongated mass, two and a half inches in length. This was thought to be, in all probability,

malignant disease of the cæcum. A hard swelling, thought to be the right Fallopian tube enlarged, was felt in the right posterior quarter of the pelvis. The patient was transferred to the medical wards, and three days later left the hospital, expressing herself as feeling quite well.

She had not been out of the hospital more than three weeks before the abdominal swelling began to return. The enlargement remained from that time, though she was able to go on with her occupation until May, 1891, when she was re-admitted. The abdomen was now uniformly distended, and there was a distinct fluid thrill with well-marked bulging of the flanks. No tumour could be detected. There was dulness on light percussion over the abdomen from the pubes upwards to a curved line, with its convexity downwards, running across the abdomen transversely a little distance above the umbilicus. On deep percussion, the note was resonant throughout. The flanks were dull, the dulness disappearing on change of position. There was slight œdema of both legs. The uterus was ascertained to be normal in length and position. There was no depression of the lateral fornices. There was some resistance in the situation of the left posterior quarter of the pelvis; none in that of the right. The temperature, the pulse, and the state of the urine were normal. On the 28th of May, 1891, an exploratory incision was made, and seventeen pints of ascitic fluid were withdrawn. The fluid was of a deep yellow colour; it gave no bile reaction, and became solid on being boiled. The left side of the pelvis was found filled with a (?) papillomatous growth from the left ovary. The Fallopian tube, thickened and equal in size to a goose quill, could be traced along a curved line to the uterus. Behind the uterus was an adherent cyst, equal in size to a small orange, studded here and there with (?) papillomatous growths. This was thought to be a cyst of the right ovary. On the surface of the intestine, here and there, were small, soft, red growths of uncertain nature. Above the incision on the under surface of the abdominal wall and beneath the peritoneum, was a round lump, equal in size to a marble, of smooth and even contour and of firm consistence.

I felt so certain that the disease was malignant that I did not consider myself justified in attempting the removal of the disease. The abdomen, therefore, after having been as far as possible emptied of free fluid, was closed. In August of the same year, 1891, the patient came to the out-patient room looking very well. There was no evidence of return of the ascites or of any increase in the size of the growth. I began seriously to doubt both the correctness of my diagnosis and the wisdom of my treatment. Very soon after this the fluid began to re-accumulate, and in the month of December, 1891, the patient was re-admitted. In the meantime I had learnt a lesson from the case of the doctor's wife already related. In the light of that encouraging experience, I offered to re-open the abdomen, remove the accumulated fluid, and endeavour to remove the disease. The patient was only too glad to give her consent, and, on the last day of the year 1891 I operated. Sixteen pints of ascitic fluid were removed. A large mass of growth, equal in size to two fists, in appearance like boiled sago, and without capsule, was separated from behind the left broad ligament and brought into view. The fimbriated end of the left Fallopian tube was attached to it. It was connected by a thick pedicle with the broad ligament and uterus. The mass was removed in the usual way. The right broad ligament was closely and inseparably adherent to the anterior abdominal wall. Behind the uterus and in the *right* posterior quarter of the pelvis was a thin walled cyst four to five inches in diameter. During an attempt made to separate this, the wall gave way and the viscid contents escaped. It was then seen that the small intestine was intimately attached to the cyst wall, and it was therefore decided to leave the collapsed cyst in the abdomen. The interior of the cyst was rough from calcareous particles. The operation lasted two hours and a quarter, the arrest of hæmorrhage occupying a considerable time. Recovery was uninterrupted.

The mass was believed by Mr. Shattock to consist of infective papilloma, surrounding and originally springing from the ovary.

Two years after the operation the patient reported herself to be quite well. In October, 1898, nearly seven years after her operation, she was re-admitted to the hospital. She stated that by resting part of the day she had been able to carry on her business all the time. She had menstruated regularly up to the summer of the previous year, when the catamenia finally ceased. There had been a gradually increasing abdominal enlargement for the past twelve months. Her age now was forty-five. The abdomen was greatly enlarged, and there was a large ventral hernia at the site of the former incision, no doubt partly in consequence of the employment of the drainage tube. On bimanual examination, the cervix uteri was found pushed forwards against the symphysis pubis, the length of which was unusual (three inches). The pouch of Douglas was distended by a smooth, elastic, fixed swelling, the upper part of which could be easily felt in the right iliac and hypogastric regions by pressing the fingers of the external hand deeply between the separated edges of the recti at the hernial aperture. The swelling encroached considerably upon the lumen of the rectum. On November 4, 1898, the abdomen was again opened with a view to the removal, if possible, of the tumour that had developed on the right side and to the closing of the hernial opening. A large cyst, intimately adherent to surrounding parts, was with difficulty removed from the right side, the cyst rupturing during the process, and a large quantity of dark brown fluid escaping. On examining the cyst after its removal, it was found to be a multilocular cystic adenoma of the right ovary, with abundant papillomatous growth on the inner aspect of the cyst walls and a similar growth in one or two places on the exterior. After the removal of this tumour, and of a peritoneal cyst apparently connected with the abdominal wall, the hernia was dealt with. The operation was necessarily severe and prolonged, lasting altogether about three hours. As on the previous occasion, recovery was uninterrupted, the temperature never exceeding 99 degrees.

I had an opportunity of examining the patient four years later, namely, on September 29, 1902. There was no return

of the hernia. There was a little tender, but not painful, swelling situated quite superficially just above Poupart's ligament on the right side. The uterus was atrophied and fairly movable. No abnormal swelling could be detected in the pelvis. There had been some persistent diarrhœa, chiefly mucous. This had evidently caused some mental depression, for the patient was half inclined to give up her business. I advised her on no account to do this, but to go to bed for a week in order to get rid of the swelling, which I believed to be due to a small effusion of serum amongst the peritoneal adhesions. I also thought this might remove her cough. She took my advice, got rid both of the cough and the depression, and, I believe, also of the swelling, for I heard no more of it. I had a communication from her so recently as Easter of the present year (1904). She is in excellent health, and one of the most quietly grateful and loyal patients it is possible to conceive. It is now more than twelve years since the removal of the growth from the left side, and four years and a half since the later operation, so that it is safe to conclude that the disease, though it had many characters suggestive of malignancy, was, as a matter of fact, non-malignant.

Are there any distinctive characters, clinical or pathological, by which we can with certainty diagnose malignant from non-malignant papilloma as found in connection with cystic disease of the ovary? My own opinion is that, at present, we have *no* absolute criteria. Consider the clinical characters first. In both forms of papilloma there is usually ascites. In both, the development may have been rapid. In the one form, as in the other, the cyst walls are apt to be particularly thin and easily torn, so that rupture, with extravasation of the contents, is by no means an uncommon accident. In both, the papilloma tends to infiltrate the cyst wall, and, passing through from the interior of the cyst to the exterior, to develop in the latter situation and become a source of infection to contiguous parts. Marked loss of flesh is often as noticeable in the one case as in the other, and in both forms there is a liability to attacks of localised peritonitis and to

intracystic hæmorrhages. No doubt, if we had access to the lumbar glands and could examine them as easily as we can the glands in the inguinal or axillary regions, we might have the distinctive clinical characteristic that we seem at present to lack.

With regard to the microscopical characters, I am told by experts that they frequently find it impossible to pronounce with certainty whether a given specimen of ovarian papilloma is malignant or non-malignant. We are therefore no better off pathologically than we are clinically; and this being the case, I am convinced that the right and humane course in doubtful cases, or even in cases where the balance of probability seems decidedly on the side of malignancy, is to open the abdomen and remove the growth if it be at all practicable. There is no absolute certainty in medicine, and the more we recognise that fact the more likely shall we be to do the best for our patients. Let me say here, however, that where an operation is obviously a forlorn hope, I for one, see no virtue whatever in advising or performing it. There are operators who seem to regard it as a crime to allow a patient, even with advanced malignant disease, to die without the consolations of surgery. I should not like it to be supposed that I belong to that category. But I do plead that where there is reasonable ground for doubt, the patient should have the benefit of the doubt.

Let me conclude to-day's lecture by narrating a case of much interest, in which, though the ultimate result is still doubtful, the patient certainly owes ten years of fairly comfortable life to treatment based on the principle I am here advocating. A single lady, aged forty-seven, who made her home for the greater part of the year in Italy, was sent to London in the autumn of 1893 by a medical friend of mine practising in Switzerland, to whom I am indebted for much of the following history:—Some years ago there had been noticed in the right side of the abdomen a tumour which was considered by her physician to be a fibroid tumour of no importance. She had suffered from dysmenorrhœa throughout her menstrual life, which had ceased three years previously

after some irregular hæmorrhages. For about a year the abdomen had been gradually increasing in size, and the patient had become thin and pale, and had frequently suffered from pain in the abdomen. Her appetite, too, had failed. Three months before my friend had seen her she had been seized with severe pain, and her physician in Italy had removed from the vagina a pessary which had been there for fifteen years. At that time, also, the patient had complained of pain in the left breast, where there had been a little swelling for the past twenty years. There was now a small hard nodule in the breast, which was believed to be either an adenoma or the result of chronic inflammation. There was no enlargement of the axillary glands. It was the end of July, 1893, when my friend had first seen her. She then looked very ill, and had a temperature of 102 degs. F. He found a centrally-situated abdominal swelling, hard and lobulated, reaching upwards to a line above the level of the umbilicus, and below to a line a little above the symphysis pubis. The tumour was dull on percussion, and merged on the right side into another and more elastic swelling above it. This latter had ill-defined limits, and underwent constant changes in size and form; it was thought to be intestine adherent to the tumour. The tumour was felt to have on the left side a small cord-like continuation which seemed to go into the pelvis. The uterus was small, anteflexed, and freely movable, but every movement of the tumour conveyed a movement to the uterus. The tumour was outside the pelvis, but could be pressed down so as to be within reach of the finger in the vagina. On bimanual examination, a thick and long pedicle could be felt going to the lower part of the tumour from the left side of the uterus. Such is a résumé of my friend's description of the condition of the patient when she was under his care. His opinion was to the effect that there was a tumour of the left ovary, cyst adenoma, or polycystoma, with small cysts or growth of a more solid nature on its surface. At all events, he was inclined to regard it as becoming malignant, judging from the hardness of some parts of it, its lobulated surface, the evident adhesions of the

bowels to the tumour, the condition of the patient, and the fact that the tumour was growing after the menopause. He discussed the question of fibroid, and thought this unlikely, as the uterus was small and did not present on its surface any trace of such a growth. Besides, the tumour was far away from the uterus, and the pedicle was rather that of an ovarian tumour. Even if it were a subserous fibroid, he had no doubt there was some change in it, probably of a malignant nature.

The pyrexia ceased after some weeks, but the pain continued. Abdominal section was proposed, and was agreed to by the patient. The family desired the operation to be done in London, and my friend accordingly wrote to me and commended the case to my care. The patient was seen on her arrival in London by an obstetric physician, who agreed in the opinion that the tumour was malignant, but thought it omental, not ovarian, and deprecated operation. On October 2, 1893, he and I saw the patient together. The lobulated tumour, with hard nodules, was very distinct, but the tension did not permit the pedicle to be made out. There was evidence of some free fluid in the peritoneum. The uterus was small and drawn up, but it could not be ascertained by what agency. The right fornix of the vagina was also elevated. I agreed that the probabilities were on the side of malignancy. The question of treatment was discussed, and my colleague again expressed a very strong opinion that no operation ought to be recommended. The ground he gave for this opinion was curious. He thought that it would be better for the patient not to have the absolute certainty as to the nature of her disease that would result from operation, that, in other words, an operation, by producing a mental attitude of hopelessness, would be more likely to shorten life than to lengthen it. It was therefore decided to advise that the patient should be admitted to the pay wards of St. Thomas's Hospital for observation. This advice was acted upon the following day. But, as time went on, I became more and more unhappy at the idea of leaving the patient to her fate, and more and more grieved with myself for having tacitly acquiesced in an opinion with which I

did not agree. Presently, I suggested to the friends the desirability of another consultation, and proposed that this time a surgeon should be asked to see the patient with me. The friends consented, and on October 11 Mr. Bernard Pitts and I met, and agreed to urge the desirability of an exploratory incision. We both thought the chances were greatly in favour of malignancy, but thought there was quite sufficient room for doubt to justify an exploratory operation. Accordingly, on October 13, 1893, with the assistance of Mr. Pitts and Dr. Edmunds, I opened the abdomen. The tumour proved to be an ordinary multilocular cystic adenoma of the left ovary, without a single adhesion. The walls were very thin, and some of the cysts had undergone rupture, so that there was a quantity of thick, transparent, jelly-like material lying free in the peritoneal cavity. All the cysts contained similar colloid material, with which the omentum was also infiltrated, both it and the liver being, moreover, studded with little cyst-like formations of the size of peas. There was no solid material in the tumour. The opposite ovary was healthy. The uterus was normal. The incision was enlarged, the tumour was expressed, and its pedicle was tied and divided. As much as possible of the free gelatinous material was removed from the abdominal cavity by the hand and by sponges, and the incision was closed without irrigation or drainage.

The patient bore the operation well, and made a fair recovery up to the time of her leaving the Home, five weeks after the operation. She went to Bath on November 21, and on the 23rd she was seized with influenza. For the next fortnight she was extremely ill, her life being at one time despaired of. She remained in Bath for some months. In June, 1894, she was able to walk about and pay visits to her friends. I saw her the following month; she was then very active, walked erect, and looked well. On May 25, 1895, a physician in Florence, writing to me, mentioned that he had seen my patient a few days previously, and that she was quite well. In the year 1899 I received from my friend in Switzerland a letter dated

November 11, in which he told me that in February of that year (1899) he had operated on the patient for a new ovarian tumour with the same gelatinous contents. Again the cyst was ruptured and the peritoneal cavity full of jelly-like material. The cyst, which was not to be felt or noticed in the autumn of the previous year, had grown very rapidly, and had attained a great size. The patient had meantime become much emaciated. She had made a good recovery from the operation, having been able to be up in a fortnight. At the date of the letter (November, 1899) she was fairly well.

Whilst preparing this address, viz., in March, 1904, the patient's brother called upon me to say that his sister, who is living abroad, had, a few weeks previously, undergone another operation, and that there had been found an irremovable mass, from which a portion had been removed for further investigation, but which, it was feared, would prove to be malignant. A few days afterwards I had a letter from the doctor, in which he gave me the following account:—The patient had for the past few months complained of pain in the abdomen. On examination he had found the abdomen enlarged, with signs of the presence of ascitic fluid in the peritoneal cavity. There was a large, flat tumour which he considered to be a tumour of the great omentum, and also a small tumour in the abdominal wall in the middle of the scar where the umbilicus had been. His diagnosis was *pseudomyxoma peritonei*, with *myxoma omenti majoris*. At the operation he had found the peritoneal cavity full of gelatinous matter and a large, hard, flat tumour of the omentum, having, in the words of the operator, the appearance of a *carcinoma gelatinosum*. The peritoneum, both visceral and parietal, was everywhere studded with little cysts with mucoid contents. The small tumour from the abdominal wall was removed for microscopical examination. The tumour of the omentum was left, on the ground that it was impossible to remove the whole of it, and that, even if possible, it would be useless, all the organs being covered with small tumours.

The microscopical examination showed the growth to be a simple myxoma without sarcomatous or carcinomatous

elements. Notwithstanding this favourable report, and the fact that the patient has recovered well from the operation and is now able to be up and out of doors, whilst the omental tumour is, if anything, a little smaller, my friend has not felt justified in giving the friends much hope. For myself, seeing that the myxomatous infiltration of the omentum had already commenced in 1893, and is, therefore, by no means a new feature in the case, I cannot take quite so desponding a view. But whatever turn things may take, there will remain the fact that the operation of eleven years ago, so strongly deprecated at the time, has been already the means of considerably prolonging the patient's life and of restoring her for at least several years to a condition of comparative health and comfort.

LECTURE II.

IN my last lecture I spoke of the difficulty of diagnosing a case of malignant papilloma of the ovary from a case of ordinary infective, or non-malignant, papilloma, and of the desirability of making an exploratory incision in every doubtful case. And when, even after the abdomen has been opened and the parts have been exposed to view and touch, there still remains, as there will occasionally remain, a doubt as to the true nature of the disease, I advocated the completion of the operation wherever it was at all possible. I narrated in, I am afraid, somewhat wearying detail three cases which had come under my own observation, and of which the subsequent history, extending over a long series of years, was more or less fully known to me. In all three, the adoption of the measures I was advocating, though carried out under the most unpromising circumstances, had had the result of considerably prolonging life, and in one instance of apparently effecting a complete and permanent cure. In order that I may not lay myself open to the charge of recording only the more favourable cases, I am about to relate, very briefly, the particulars of a case which, though less successful in regard to the extent to which life was prolonged, nevertheless still appears to me to have justified the decision to operate.

The patient was a married woman, aged sixty-two, who had had nine children, and who had ceased to menstruate ten years previously. She was brought to me on November 18, 1899, by the late Mr. Rudge, of Bristol, who informed me that she had been seen by several consultants in Bristol, and that they, considering the case to be one of malignant disease, had, on that ground, advised against any operation. Mr. Rudge himself disagreed with this view, and had therefore brought his patient up to London for another opinion.

She had been in failing health for several months, and looked seriously ill.

I found a cystic tumour occupying the lower half of the abdomen, and, in the hollow of the sacrum, apparently continuous with the abdominal tumour, a soft swelling in which, though it was elastic, I could not satisfy myself that there was evidence of fluctuation. This intra-pelvic swelling pushed the uterus upwards and forwards, and encroached both upon the vagina and upon the rectum.

On the ground that there was no evidence that the tumour, whatever its nature, was irremovable, I agreed with Mr. Rudge as to the desirability of at least an exploratory operation, and we advised the patient and her friends accordingly. After returning home to Bristol and considering the matter, the patient, at the entreaty of her husband and children, decided to give her consent, and on November 29, 1899, the operation was performed. Two tumours were removed—one abdominal, one pelvic. The former was partly cystic (2 pints, 7 fluid ounces being removed by tapping before removal) and partly solid, and grew from the left ovary. The latter was solid, with cavities in its substance due to softening, and was adherent to surrounding parts. It grew from the right ovary, and was equal in size to an ostrich's egg. There was some ascites. The uterus was healthy.

On examination, the tumours proved to be soft, columnar-celled carcinomata of the ovary.

The patient made a good recovery, her temperature never exceeding 100 degrees Fah. She was able to return home to Bristol within three weeks.

On the 31st of January, 1903, rather more than three years after the operation, Mr. Rudge reported that there was no evidence of recurrence, and that the patient was, in fact, quite well. But, not long after that, her health began to fail, and she complained of pain and tenderness in the left iliac region. These symptoms increased, and gastro-intestinal disturbances followed, with cramp and œdema of both lower extremities; and, though no actual growth was discovered throughout the

illness, the emaciation and loss of strength became very pronounced, and death occurred on the 19th of August, 1903.

As I began by saying, I do not put this case forward as being a signal instance of success. I include it rather because I feel it only fair to speak of the less successful cases as well as the more successful. But even here, was it not worth while for the patient to undergo the operation? As a result of it, she had three years of comparative health and comfort; without it she must, I think, have died, under circumstances of great and increasing misery, within almost as many months. That is the case as stated from the patient's point of view. But there are the relatives and friends to be considered, and it is certain that they would declare the prolongation of so highly valued a life for nearly four years to be well worth the risk and ordeal of an operation.

In the next case to which I will ask your attention, I was myself in some doubt at first as to the desirability of operating. A single lady of thirty-four, acting as her father's secretary, was sent to me from Gloucestershire on the 28th of January, 1902, with the statement that she had a rapidly increasing abdominal tumour, and that she had also some dulness at the lower part of the chest on the right side, which the doctor thought might be due to old pleurisy and not to the presence of fluid. The account the patient gave me was that some increase in size had first been noticed in May, 1901, but that no attention had been paid to it until October, when she began to suffer from severe attacks of abdominal pain, which were thought to be due to indigestion. No examination had been made until Christmas Eve, when the doctor had discovered a tumour. Three days later she saw a consulting physician in Gloucester, who regarded the tumour as uterine and did not consider that an operation was at present advisable. The patient had, however, become rapidly worse, and during the last fortnight had been incapacitated from following her usual occupation and had been unable to lie down at night.

I found the abdomen enlarged and tense from the presence of a fixed, tender, cystic tumour, equal in size to the six

months pregnant uterus. On vaginal examination the uterus was found to be lying forward and to the left of the middle line. It was of normal length and immovable. Behind it there was a fixed, hard swelling, extending across the back of the pelvis. Otherwise no part of the tumour extended into the pelvis. The patient had a dry cough and dyspnœa, with dulness over the posterior and lower part of the right lung and exaggerated resonance below it. My opinion was that the abdominal tumour was either a malignant ovarian cyst or an ordinary ovarian cyst with a twisted pedicle and secondary inflammation around it.

The patient went into St. Thomas's Home the following day in order to be under my observation. Being in some doubt as to the precise condition of things in the chest, I suggested a consultation, and on January 31 Dr. Sharkey, the senior physician to St. Thomas's Hospital, saw her with me and examined the chest very carefully. He would not give a positive opinion, but was inclined to the view that the abnormal chest signs were due to the displacement upwards of the liver and intestine. The next day—as she had, in the meantime, had another attack of pain—Dr. Sharkey saw the patient again. He found extension of the dulness, and now considered that mere displacement would scarcely account for the phenomena, and that there must be some fluid. He suggested the introduction of a trocar to settle the point, and in the meantime thought an operation under the circumstances scarcely to be advised. However, whilst approving the suggestion as to the exploratory puncture of the chest, I came to the conclusion that an abdominal incision ought to be made quickly and the nature of the abdominal tumour definitely ascertained. To this the patient and her sister agreed. Arrangements were accordingly made for the operation to take place on the morning of the 3rd of February, and for the chest to be aspirated in the meantime. On February 2 the acting resident medical officer aspirated the chest, and drew off 1 pint and 16 fluid oz. of clear fluid. The following day I opened the abdomen. There was a considerable amount of ascitic fluid. The tumour was multi-locular and cystic with

thin, easily lacerable walls and with no adhesions. It contained much thick, mucoid material, and many parts consisted of either a very close aggregation of minute cysts or of a loosely-composed solid growth. A part that much resembled brain tissue in colour, appearance, and consistence, was sent to the Clinical Research Association for examination and report (see below). The growth filled up the back of the pelvis, and, in an upward direction, had extended beneath the liver and pushed it up. It had originated from the right ovary. The Fallopian tube, much elongated, was spread out over the tumour and removed with it. The pedicle was broad. The left appendages were normal and were not removed. There had been a considerable amount of intra-cystic hæmorrhage, especially into the lowermost loculus. The whole tumour, after removal, peeled readily out of its capsule. The patient made a rapid and uneventful recovery, and left the Home on the 5th of March, feeling very well. The improvement in the general condition, indeed, was very marked.

The following report, signed by "J. H. Targett," vas received from the Clinical Research Association on the 15th of February:—"The general structure of this growth corresponds with that of a multi-locular adenoma, and there is no definite evidence of malignancy. At the same time, the epithelial proliferation is rapid and, in places, irregular, forming masses of cells within the loculi. Hence the tumour is of a suspicious character, and a guarded prognosis should be given."

Two years after the operation I received from the patient a most grateful letter, in which she told me she was so well that people could scarcely believe there had ever been anything seriously wrong with her. About three months later, whilst preparing this lecture, I wrote to the local doctor in order to have the latest possible information about her. He told me in reply that he had visited the patient and that she complained of some indefinite discomfort in the abdomen to which he himself, however, was not inclined to attach much importance. In face of the very rapid growth and suspicious appearance of the tumour removed, and of the very

guarded report I received as to its pathological nature, I cannot but regard even the indefinite symptoms now complained of with some little apprehension. Nevertheless, there remains the fact that for at any rate two years the patient has enjoyed excellent health, and that seems to me to be ample justification for the operation, even though there should, ultimately, be a recurrence of the disease, of which, however, at present there is no actual evidence.

I pass on now to two cases that come within an entirely different category from those of which I have been speaking. I had not at first thought of including them, or I should have somewhat modified the title of my lectures so as to have brought them more directly within its scope. But though the suspicion of malignancy in these two cases did not arise until the tumours had been removed and came to be examined microscopically, the lesson they inculcate is very much the same, and it is on that account that I have decided to relate them. Both were examples of solid tumour of the ovary, which eminent pathological authorities pronounced to be sarcomatous, but which, after the lapse of many years—thirteen years in one case and nearly eight in the other—show no sign of recurrence. One of these cases I have mentioned occasionally in the course of discussions at the Obstetrical Society of London, but I have not hitherto described either of them in detail, because it seemed to me that their value largely depended upon the length of time they could be kept under observation. The present occasion appeared to offer a suitable opportunity to place them on record. I will take them in the order of their occurrence.

The first case, then, was that of a girl of nineteen, in a situation as nursemaid, who was sent up from the country to see me in the month of March, 1891, on account of some irregular hæmorrhage. The catamenia had commenced at the age of sixteen. In August, 1889, after two or three periods had occurred at fortnightly intervals, the flow had become continuous. Under treatment, the hæmorrhage had ceased and menstruation had been normal. But in June, 1890, the hæmorrhage had recommenced and had lasted continuously

until October. There had then been amenorrhœa for ten weeks, but early in December the flow had re-appeared and had continued up to the 31st March, the day upon which she was admitted to St. Thomas's as an in-patient. There had been no gushes of blood or any offensive discharge. She had had no pain and her appetite had been good; but she had lost flesh and colour, and her strength had failed. At the time of her admission she was a slight, active, intelligent girl, with marked anæmia. She was quite unaware that she had any swelling, until it had been discovered by myself in the course of an ordinary vaginal examination when she presented herself in the out-patient room. Nothing abnormal could be detected on abdominal examination. Vaginal examination showed the uterus to be normal in size, and to be pushed forward and to the extreme left by a firm, solid, elastic tumour filling the cavity of the pelvis and estimated to be at least as large as the closed fist of an adult male. The uterus could be moved independently of the tumour. On the upper part of the posterior vaginal wall on the right side there was a rough patch of easily-bleeding vegetations equal in area to a shilling. On rectal examination a portion of the tumour, resembling in shape the narrower end of a hen's egg, was felt to bulge the anterior rectal wall inwards. I diagnosed a solid tumour of the right ovary, with commencing epithelioma of the vagina.

On the 1st of April (1891) I removed the tumour by abdominal section. There was a small quantity of ascitic fluid in the abdominal cavity. The tumour was a solid growth from the right ovary and was incarcerated in the pelvis; there were no adhesions. The Fallopian tube was healthy. After removal, the tumour was incised. As the appearance it presented on section was very suggestive of malignancy, it was thought wise to remove the normal appendages of the opposite (left) side, which was accordingly done. The patient made an excellent recovery. When she was examined on the 18th day, all trace of the rough bleeding patch on the vaginal wall had disappeared. (I place this fact on record, and hope at some future time to draw attention to it.)

The tumour removed measured 4in. by 5in., was heart-shaped, and weighed 1lb. 3½oz. Its surface was smooth and of an opaque, pinkish-white colour. There were two or three serous cysts on its surface. On section, the capsule was found to be one-eighth of an inch thick, the interior consisted of a soft, solid, new growth, of a yellowish-grey colour, like fat. There were no points of degeneration and no cysts. There was a large fissure, the walls of which were in contact when the section was first made, but fell apart during examination, giving the appearance of a cystic dilatation. It contained, however, no fluid. A milky-white juice could be scraped from the cut surface. Mr. Shattock, the curator of the Hospital Museum, and now also curator of the Pathological Museum of the Royal College of Surgeons, was decidedly of opinion from the naked-eye appearances that the tumour was malignant, but was unable to say whether it was a carcinoma or a sarcoma. After repeated microscopical examination, he pronounced it to be an undoubted spindle-celled sarcoma throughout. The specimen is now in the St. Thomas's Hospital Museum, No. 2,378. The patient went on well, and a few months after the operation was allowed to return to service. There had been no menstruation.

In the month of November, 1892, she wrote to tell me that for some weeks she had been almost constantly vomiting. Fearing that there might be some growth in the stomach, I asked her to come and see me, which she did. The vomiting had, however, not then occurred for a week. I could detect nothing abnormal in the epigastrium. The uterus was perfectly movable, and the lateral parts of the pelvis were absolutely free from thickening, or fixation, or other abnormal condition. The patient still looked pale, but in spite of the vomiting had not lost flesh to any appreciable extent. This and some other nervous symptoms continued for about six months, and probably represented the menopause. After that she again went into service, and remained perfectly well. Six years ago she decided to become a nurse. On learning her history, the authorities of several of the London training schools

refused to receive her, but she was ultimately admitted as a probationer at a hospital in one of the large towns of Lancashire. After fulfilling her time as probationer, she remained at the hospital as a nurse, and has now for three years held the responsible position of "Sister." I heard from her within the last three weeks; she reports herself as being in excellent health and very happy. As it is now thirteen years since her operation, she may probably be considered as no longer liable to a recurrence of the disease.

In the second case, seven and a half years have elapsed since the operation. The patient was twenty-six years of age, unmarried, and a governess in a private family. The catamenia had commenced at the age of eleven, and, except for one period of twelve months when there was complete amenorrhœa, had always been profuse. This appears to be a family characteristic. For more than a year before she first consulted me she had scarcely ever been free from hæmorrhage, which had often been profuse enough to necessitate bed, and had generally been accompanied with the passage of clots. Medicines appeared to have had no effect. It was on account of this hæmorrhage that she was sent to me on the 13th of July, 1896, when, for the first time, she was discovered to have an abdominal tumour. The abdomen was rendered prominent by the presence of a large, single, non-fluctuating, smooth, firm, symmetrical swelling, centrally situated and measuring in width nine inches, and from the pubes upwards to its summit eleven and a half inches. The cervix uteri was high up and projected normally. The sound entered for a distance of two inches, and, as it then appeared to meet with some obstruction, attempts to pass it further were not persisted in.

My diagnosis was uterine fibro-myoma, and I advised its removal. Subsequently Mr. Meredith saw and examined the patient, and formed the opinion that the tumour was independent of the uterus and probably ovarian. He agreed, however, in advising operation. Matters could not be very quickly arranged, but two months after first seeing me, namely, on September 16, 1896, she was admitted under my care into St. Thomas's Home, with a view to operation.

When the abdomen was opened, on the 19th, it turned out that Mr. Meredith had been right and that the tumour was a solid growth, independent of the uterus, and springing from the left ovary. It measured 9in. in length, and 5½in. in thickness. Its breadth in its upper part was 9in., and in its lower part 7½in. Its weight was 6lb. 10oz. It was brought out of the abdomen, and removed in the ordinary way. The appendages of the right side were normal. Portions of the tumour were sent for microscopical examination and report to the Clinical Research Association. A report was received, signed by Mr. J. H. Targett, to the effect that the microscope showed the growth to be a sarcoma, mainly consisting of spindle and oval cells, arranged in bundles. Except that the patient, who, though largely built was thin to begin with, did not at first gain flesh, and, that in the second week, the left thigh as far as the knee became swollen to twice the size of the other and remained so for ten days or a fortnight, recovery was satisfactory and uneventful, and she was able to leave her bed in less than a month. When she left the Home on the 11th of November, 1896, she had begun to gain flesh and strength, and her colour was beginning to improve.

I saw her on the 9th of June, 1897. Menstruation had been re-established in February, and she had since been quite regular. There was no evidence of recurrence, and the patient was looking and feeling quite well. Her weight was then 10st. 8lb., as against 10st. on December 9, 1896.

On the 31st of March, 1900, she reported that her health was excellent. "I am now stronger," she wrote, "than I have ever been in my life. I can take an eight-mile walk without undue fatigue, and have been known to cycle 16 miles without being much the worse. The leg rarely swells now except when I have been standing a long time. The monthly arrangements are automatic in their regularity and punctuality. In fact, in the eyes of my friends, I am a marvel." I saw her a week after this letter was written. She then told me that menstruation was still profuse, but she believed this was natural to her. On examination, I found the wound

quite soundly healed and the uterus natural in size and movable. No abnormal swelling could be detected either in the pelvis or elsewhere.

On November 2, 1903, seven years after the operation, the patient wrote to tell me that she was "very well indeed," and was engaged to be married. Six months later, viz., on April 18, 1904, I saw and had the opportunity of examining her. She was in excellent health, was menstruating quite regularly, and was free from any sign of recurrence.

It may, of course, be said that the microscopist must have been wrong, and that what he believed to be the cells of a sarcoma were in reality embryonic fibrous tissue, the tumour being a simple fibroma of the ovary. But this is surely begging the question. It seems to me that to say because a tumour has not recurred it cannot have been a sarcoma, besides being a deplorably pessimistic position to take up, is both illogical and unscientific. I would rather say that these cases carry us even a step further than my title suggests in regard to the indications for radical treatment, and justify us in urging exploration, and, where possible, removal, not only in cases where malignancy is suspected from the clinical features presented, but also in cases where the pathologist has converted the suspicion into what he at any rate *believes* to be a certainty.

I have now to call your attention to two cases that are to me of very great interest, inasmuch as they are the only examples with which, in the course of a long experience, I can remember to have met of the co-existence in the same patient of carcinoma of the uterus and carcinoma of the ovary, of their co-existence, I mean, without visible continuity. Of course, the uterus and ovaries being neighbouring organs, malignant disease may, and does, in its later stages, spread by direct extension from the one organ to the other. But in the cases I am about to relate there was disease of both uterus and ovary, without obvious contact, so that it became a difficult thing to determine in which organ the disease was primary and in which secondary. Mr. Targett, who furnished the pathological report in both cases, was of opinion that in

the first case the primary disease was in the ovary, and that in the second case it was in the uterus.

The first case was that of an unmarried lady, thirty-three years of age, who was sent to me on the 27th of June, 1901, with the history that, for about fourteen months, there had been a pink discharge in the inter-menstrual period with occasional menorrhagia. No examination had been made. The cervix uteri was found on examination *per vaginam* to be patulous and long. The finger passed easily into what appeared to be the uterine cavity, where there was a growth, easily made to bleed and easily detached. In Douglas's pouch, pushing the uterus to the front and to the left, was an irregular fixed swelling, equal in size to an ordinary orange. My diagnosis was that either both intra- and extra-uterine growths were malignant or tubercular, or they were non-malignant and independent (ovarian dermoid or adenoma with adenoid vegetations of the endometrium). I recommended abdominal section, preceded by exploration and, if necessary, curetting of the uterine cavity.

On July 10, 1901, an examination *per vaginam* was made under anæsthesia. The cervical canal was found curiously and asymmetrically dilated. The *os uteri internum* was situated in the left upper corner of the expanded cervix, on the wall of the upper part of which the mucous membrane was covered with a soft growth. The *os internum* was sufficiently dilated to admit the finger. Some soft growth was felt on the lining membrane of the fundus similar to that found in the upper part of the cervix. This was removed with the curette and a portion sent for microscopical examination to the Clinical Research Association. On introducing the finger within the uterine cavity after the curetting, a hard, smooth plaque was felt just beyond the *os internum* just like the half of an almond divided longitudinally. As the material removed by the curette had not, to the unassisted eye, a malignant appearance, it was decided to leave the uterus *in situ* until the microscopist's report had been received, and to proceed to abdominal section with the view of removing, if possible, the intra-pelvic swelling, which was now,

under anæsthesia, felt to be equal in size to that of a fœtal head at term. The tumour proved to be a thin-walled multilocular cystic adenoma of the right ovary, one loculus of which was ruptured during removal. The tumour was adherent to the floor of the pelvis, to the lower part of the posterior aspect of the uterus, and to the back of the broad ligament. It measured about 5in. by 4in. At one spot there was a small projecting mass about the size of a small walnut, consisting of a compact mass of very small cysts, which gave it a solid appearance. There was some papilloma on the inner surface of the unruptured larger cyst. (Portions of both were sent for examination and report.) The tumour, having been separated and drawn out, presented a good pedicle of stretched out broad ligament. When it had been removed, the uterus was brought into view, and was found globular and bulky, like a two-months pregnant uterus, except that it was very firm. The left ovary was small, shrivelled, adherent, and calcareous. It was not removed. On the 20th of July, ten days after the operation, a report was received from the Clinical Research Association, signed by Mr. Targett, to the effect that the disease both in the ovary and in the uterus was carcinoma.

The following is a copy of Mr. Targett's report:—

"*Specimen* 541.—This material from the uterus consists of a very soft columnar-celled carcinoma of the villous type. The tubular arrangement of the cells is well preserved, and the stroma is very scanty.

"*Specimen* 542.—The character of the carcinoma is best seen in this section from the right ovary. It shows a typical columnar-celled growth, and a marked tendency to the formation of small cysts which become secondarily filled with intra-cystic papillary processes. There is abundant evidence of malignancy in the invasion of the surrounding stroma.

"*Specimen* 543.—This section at first sight seems to be a simple adenomatous intra-cystic growth, but on closer inspection it will be noted that there are many solid clumps of epithelium among the delicate papillomata. They are due to

epithelial proliferation and indicate the tendency of the tumour, though here seen in its earliest stages.

"Apparently the disease is primary in the ovary and has extended to the uterus. J. H. TARGETT."

"*July*, 19, 1901.

The patient was therefore advised to have the uterus extirpated *per vaginam*, and to this she consented.

Accordingly, on the 25th of July, vaginal hysterectomy was performed by my colleague, Dr. Walter Tate. The operation presented no special difficulty. There was a distinct hard lump, about the size of a Spanish nut and rough on its inner surface, situated in the anterior wall, towards the right side. There was no evidence of extension of the disease to the broad ligaments or to the left appendages. The latter were, however, removed as a matter of precaution. The parts were adherent in the neighbourhood of the stump on the right side, but the adhesions were easily separated. The patient recovered fairly well from the operation, but remained for some months pale, thin, and thoroughly unstrung. She spent the winter of 1902-3 on the Italian Riviera, and whilst there underwent the Weir-Mitchell treatment. The result was successful beyond anticipation, the patient gaining 22lbs. in weight during the six weeks. She returned to England looking bright and happy and the very picture of health. In the summer of 1903, about two years after her operations, she was married, her husband having been made fully aware of all the circumstances. Vaginal examinations had been made frequently ever since the last operation, but with entirely negative results until the 24th of November, 1903, when a little fleshy growth was detected at one angle of the scar in the vaginal roof. There had been a slight continuous blood-stained discharge for some time, and the little growth bled easily on touch. I advised that this should be at once dealt with. I accordingly sent the patient to Dr. Tate, who regarded it as merely a little exuberant granulation-tissue, but quite agreed with me that it should be removed. This was done on the following day, and the specimen was sent to

the Clinical Research Association for examination. The report was to the effect that the growth was distinctly carcinomatous. It has not, however, re-appeared. On the 17th of March of the present year, Dr. Tate and I found a soft swelling above the vaginal roof, equal in size to a pigeon's egg. Two days later Dr. Tate made an exploratory incision *per vaginam*, with the result of evacuating a small collection of discoloured serum. The swelling thereupon disappeared. No evidence of new growth was detected.*

The second case was that of a maiden lady, aged forty-nine, who had always enjoyed good health. I saw her for the first time on January 2, 1903, in consultation with my friend Dr. Horace Duncan. Since the beginning of October, 1902, she had suffered from a dull pain in the right iliac region, whilst for the last eight months the monthly periods had lasted longer than usual and had occurred at gradually shortening intervals. In December there had only been an interval of three days. The discharge had been dark, clotted, and occasionally offensive. I was unable to discover any evidence of swelling on even deep palpation of the abdomen. On vaginal examination the uterus was felt to be strongly anteflexed and anteverted, the body resting on the anterior vaginal wall and pressing it backwards. The os and cervix uteri were high up and difficult to reach; they appeared to be normal. There was an irregular, not very movable, ill-defined swelling in the situation of the right uterine appendages. It neither gave the impression of an out-lying fibroid nor of an incipient ovarian cyst. The note I made when I returned home was as follows:—"Considering the age of the patient, the pain and the anomalous nature of the swelling, there seems reason to fear it is a malignant growth,

* Whilst this Lecture was passing through the press, the patient was again discovered to have a swelling, this time equal in size to a closed fist, above the vaginal roof. Accordingly, on June 20th, 1904—it being now nearly three years since the first operation—it was decided that the abdominal incision should be re-opened. The swelling proved to be a cyst connected with the remains of the right uterine appendages, roofed in by adherent viscera, and itself intimately adherent to the parts around. It contained reddish-brown serum without odour. Its wall, for the most part thin, smooth and friable, presented at one spot, a patch of soft, friable growth, equal in size to a hazel nut. The whole of the cyst, including the growth, was removed. No evidence of further extension or of glandular infection could be detected. The patient's general condition, in the meantime, is by no means unsatisfactory. Except that she had felt somewhat lacking in energy and had lost flesh slightly, she had had no symptoms. The swelling was discovered accidentally in the course of an ordinary periodical examination. It is now (June 30th) ten days since the operation, and she is making an excellent recovery. The growth from the cyst-wall has been examined microscopically and proves to be malignant.

probably of the right Fallopian tube, but possibly of the ovary." Exploratory incision was advised with removal of the growth if it were found practicable, the operation to be preceded or supplemented by curetting of the uterus.

The patient's friends wished to have a further opinion upon the case, and accordingly a few days later she was seen by another obstetric physician, who was inclined to regard the tumour as a fibroid; at any rate, he did not think it was malignant. With reference to operation, his advice to the patient was to wait for the present. "It could not possibly do any harm," he said, "to wait a few weeks."

Dr. Duncan watched the case, and as he considered the development of the growth was too rapid to be consistent with the diagnosis of fibroid, he asked me to see the patient again with him on the 20th of February. The swelling was now easily apparent on abdominal palpation, as a rounded, hard, well-defined, slightly movable tumour, situated in the right iliac region. Bimanually, it was still obvious through the vaginal roof, the abdominal development being evidently due, not to alteration in the position of the tumour, but to increase in its size. There was also now perceptible a smaller but equally hard swelling in the left iliac region. The uterus was anteflexed, and appeared to me to be of normal size.

My opinion as to the malignancy of the growth and also as to the desirability of an exploratory operation was confirmed. On this occasion my suggestion was adopted. Accordingly, on the 25th of February, 1903, I opened the abdomen. The mass on the right side was found to be a soft growth, evidently malignant, of the right ovary, partly cystic and containing in its centre thick, yellow, turbid fluid, apparently pus. It measured 5½in. by 4in. by 2¾in., and was adherent to the walls and floor of the pelvis. The mass on the left side was of the same character, but smaller, measuring 3in. by 2½in. by 2in. It also was breaking down in the centre and was adherent in the pelvis. Both growths were removed with difficulty, leaving behind thick tags of adhesion. Before the abdomen was opened, the uterine canal had been dilated and curetted. A large quantity of soft growth

had been removed, and the instrument had revealed a ragged deep excavation in the posterior wall of the *corpus uteri*. It was evident that there was carcinoma of the body of the uterus. Now that the uterus could be examined from above, there was seen to be a small, rounded, hard projection from the middle of its posterior aspect. (This afterwards proved to be a fibroid.) The peritoneum covering the uterus was unaffected. The propriety of supplementing the removal of the ovaries by the removal of the uterus was discussed, but, as the prognosis seemed hopeless, as the operation had already been long and severe, and as the anæsthetist had already had difficulties in regard to respiration, it was decided not to attempt it.

The patient made an unexpectedly satisfactory recovery, and on the third day I began to be exceedingly unhappy at the thought of having left the uterus unremoved. I therefore proposed that at the end of a week from the day of operation, if things should continue to go well, I should be permitted to re-open the abdomen and extirpate the uterus. This having been agreed to, I proceeded on the 4th of March to perform the operation, the vaginal attachments of the uterus having previously been separated by Dr. Tate, and the cervical canal closed by means of a suture. The adhesions about the stumps left at the operation of the previous week were numerous, and the mass formed by them on the left side was so considerable in size and so hard that on bimanual examination before operating it had been feared that the disease had already spread. On laying open the uterus after its removal, it was seen that the malignant growth, which involved the whole mucous membrane with the exception of an islet here and there, had penetrated into the muscular coat, but had not extended beyond the tissues of the uterus itself. There were several small fibroids; one of these was equal in size to a cherry, half being imbedded in the posterior uterine wall and half projecting from it.

The report from Mr. Targett was as follows:—

"March 5, 1903. The growth removed from the uterine cavity is a very soft carcinoma of the columnar-celled type.

Owing to rapid proliferation the cells do not form tubules, but are arranged in large alveoli with very little intervening stroma. The growth in the ovary is also a soft carcinoma like that of the uterus, and its columnar-celled character is more distinct. In many of the alveoli there are small cystic spaces due to mucoid degeneration. I think this growth is secondary to [that in] the uterus. It is unlike a primary carcinoma of the ovary."

The uterus having been forwarded after its removal, Mr. Targett sent in a further report, dated May 7, 1903:—

"The sections prepared from the edge of the growth show the structure very well, viz., a columnar-celled carcinoma of the type that would originate in the endometrium of the body of the uterus. The cells form imperfect tubules and irregular masses which have already penetrated the muscular substance of the uterus to a considerable depth. There is nothing in the character of the cells or their arrangement which would suggest that this was a secondary growth. . . ."

I had an opportunity of seeing and examining the patient on the 27th of last month (April, 1904). She had been remarkably well since the operation, now fourteen months ago, and had been able to pay a number of visits in various parts of Scotland and elsewhere. There had been no unpleasant symptoms beyond some hæmorrhage from the bowel during, and immediately after, defæcation (which manifestly had its source in some internal hæmorrhoids), and, during the last few days, some indefinite discomfort in the pelvis which interfered with walking. I could find, on examination, no definite evidence of recurrence. There was certainly some irregular thickening to be felt between the bladder and the upper part of the rectum, but only such as might be accounted for by matted adhesions following operation. It is, of course, too early to say what the ultimate result will be. But even as matters stand, I cannot regret having performed the operations. Indeed, my only regret is that I was not permitted to operate when I first proposed operation, and that several weeks of very valuable time were lost.

My object in these lectures has been to encourage a spirit of hopefulness in dealing with apparently malignant cases, and to furnish a few examples of what may be gained by active surgical interference even when the probabilities have seemed to be overwhelmingly against success. I know from experience, as, indeed, every one of us knows, how helpful it is when one has to decide what course to advise in difficult and unpromising circumstances to be able to cast one's mind back upon some similar case either in one's own experience or in that of another. And it is because I have felt the enormous value of a concrete example of pluck rewarded, that I am going to conclude with a story which it was my privilege to communicate to the *Medical Times and Gazette* a good many years ago, viz., in 1881, and which, though it does not come strictly within the special subject of these lectures, exhibits such a triumph of perseverance, and has so often proved a source of encouragement to myself, that I make no apology for re-telling it. The story was committed to writing by the patient herself, the wife of a country clergyman, and was recorded in the *Medical Times* in her own words.

I will epitomise it as briefly as I can. It was in February, 1837, when this lady, a healthy young married woman expecting her confinement in about three months' time, first perceived a small lump in the right breast. This lump remained much about the same size during the next few months, but, on her again becoming pregnant, it grew considerably, and three months after her second baby was born the whole of the right breast was removed by a well-known Manchester surgeon, Mr. Thomas Turner. The cicatrix never seemed quite healthy. There was always a small lump, which about seven months later burst and discharged a small quantity of water. Another operation was now deemed necessary, and, though only two months were to elapse before she was again to be confined, it was performed by Mr. Thomas Turner on October 26, 1839. The wound was this time left open, and took two months to heal. Her child was born on the 28th December, and soon afterwards there were noticed some unhealthy appearances in and above the cicatrix. She nursed

her baby for four months, and then, by the advice of Mr. Bickersteth, of Liverpool, consulted Sir Benjamin Brodie. He and Mr. Travers held a consultation, with the result that she remained in London seven weeks under the care of Sir Benjamin Brodie, who, on three occasions, applied caustic potash and, on one occasion, chloride of zinc. The latter application was attended with extremely severe pain which lasted for forty-eight hours. It was hoped these applications had been effectual. The patient returned home, supposed to be cured, though there was a small wound yet unhealed. This, instead of healing, assumed a hard, raw aspect, and became a large nodule which grew rapidly. The local practitioner now took charge of the case, and from August 1, 1840, until October, applied various caustics to check the progress of the disease. In October, the patient was prevailed upon to try the then popular remedy of brandy and salt, but under this treatment the disease rapidly gained ground. It was then proposed to strangulate the now enormous growth by means of silk ligatures tied firmly around its neck and tightened every two days. This treatment, which was horribly painful, lasted for two months, at the end of which time the greater part of the mass had sloughed off and the rest was divided with scissors. As there still remained much to be destroyed, the caustics were now resumed. They were applied once, twice, or thrice a week or every ten days, as the growth seemed to require. Occasionally the growth was very rapid; at other times considerable portions sloughed off. Before the patient's fourth confinement on October 11, 1841, the size had been much reduced and the growth remained very small until some weeks after delivery, when it again commenced growing and the patient became very weak and ill. About the middle of December she was induced to try another remedy, viz., plasters of cobblers' wax covered with saltpetre. These caused excruciating pain and much sloughing, but the disease gained in spite of them and the old treatment by caustics was resumed. The caustics used were of various kinds—potash, arsenic, and nitric acid. The application of the last-named always made the patient

exceedingly ill for several days. The general health had now become much worse, and the patient's sufferings were augmented by the occasional formation of small abscesses near the inner border of the growth.

In September, 1842, the patient went to Paris to consult M. Canquoin. The excrescence then measured about 6in. in length by 7in. in breadth, and was a full inch in thickness above the surface of the body. The surface of this growth was raw. On the 8th of the month, Canquoin, with the assistance of two other doctors, was engaged for an hour and a quarter in removing the whole of this mass by means of caustics. Further severe applications of caustics were made on the 10th of September, and on two subsequent occasions (September 28 and October 5). Milder applications were made on October 13, 14, and 15, but on the 22nd and 25th it was again necessary to apply severe measures. The greater part of the ulcerated surface had by this time become much more healthy, but one small portion near the sternum still remained refractory. It was to this portion that the caustics had been applied on the last six occasions. There still, however, remained something that needed to be destroyed. Accordingly, on the 2nd of November, Dr. Canquoin, in the presence of the two other doctors, again applied the crayon caustics for nearly three-quarters of an hour. The suffering was intense, but this was the last application that was required. For, on the 15th of November, to the patient's "unspeakable joy," Canquoin assured her that the disease was completely destroyed and that no more caustics would be necessary. The wound now diminished daily, and healing took place healthily and evenly. The whole wound had become closed over on January 31, 1843, six years from the first appearance of the disease. A scab subsequently fell off, leaving a superficial raw surface, but this only remained open for about three weeks, and was entirely and finally healed on the 3rd of March, 1843.

When she wrote this account, the old lady was seventy years of age. She was in excellent health, and had been

ever since her return from Paris in 1843, *i.e.*, for thirty-seven years. I did not know her personally, but one of her sons was a medical friend of mine, and two of her daughters have been my patients. It was not until she was seventy-eight that she began to suffer from any of the infirmities of age. She died from peritonitis at the age of eighty.

I have, of course, no absolute proof that the disease was cancer, but I think it may be taken as practically certain that it was. I know nothing else that behaves as this did. Anyway, it was something that recurred again and again with malignant persistence, and who can doubt that but for the patient's marvellous determination and perseverance she would have succumbed to it?

I have quoted the case because I regard it as a remarkable illustration of what can be accomplished by attacking such growths again and again, and by making up one's mind not to be beaten as long as there is one spark of reasonable hope.