ADDRESS IN OBSTETRICS AND GYNÆCOLOGY

BY

C. J. CULLINGWORTH, M.D., F.R.C.P.,

Obstetric Physician and Lecturer on Midwifery and Diseases of Women,
St. Thomas's Hospital.*At the Annual Meeting of the British Medical Association held
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ON PELVIC PERITONITIS IN THE FEMALE, AND THE PATHOLOGICAL IMPORTANCE OF THE FALLOPIAN TUBES IN CONNECTION THEREWITH.

TWELVE years have elapsed since the last Address in Obstetric Medicine was delivered before this Association. If, following the example of my predecessor, I had determined to occupy myself on this occasion with a review of the progress made in this great department of medicine during that time I certainly should not have had reason to complain of any lack of material. Both in obstetrics and gynæcology the advances in our knowledge have been enormous. For the very briefest survey of them I should require a much longer time than the hour that has been generously placed at my disposal. Even then I am doubtful whether the time would have been profitably employed. This work of review is now done so well in the various yearbooks and other similar publications, and in the annual presidential addresses delivered before the several obstetrical and gynæcological societies of the United Kingdom, that it appears to me undesirable to take up your time with it on an important occasion such as this. I propose, instead, to ask your attention for a short time while I endeavour to point out some of the advances that have been recently made in our knowledge of pelvic inflammations, and more especially pelvic peritonitis. I have selected this subject for many reasons. It includes within its range the most common and, from their far reaching effects upon the sufferer's health and usefulness, probably the most important of all the diseases of women. It almost equally concerns the obstetrician and the gynæcologist, and therefore fulfils, better than any other subject I could think of, the terms of your invitation, namely, that I should give an Address in Obstetrics and Gynæcology. Again, the subject has now been delivered, or nearly so, from the bondage of theory and tradition and the authority of great names, and may at length be studied in the light of well ascertained facts. And lastly, as it is always the safer and wiser plan for a speaker to choose as his topic that which he knows most about, this subject commended itself to me as being the one to which my own thoughts have been for some time past more especially directed.

HISTORICAL.

Before attempting to convey an idea of the present state of our knowledge of pelvic inflammation, I must allude for a moment to the history of the subject, and especially to the work and writings of the man whom I believe to have been one of the greatest gynæcologists of the century—M. Bernutz. At the time when Bernutz published his clinical memoirs it was the current belief that the hard swellings felt above the vaginal roof on one or both sides of the uterus in cases of pelvic inflammation were invariably due to inflammatory exudation in the connective tissue at the base of the broad ligament, or between its layers. Nonat had for ten years been upholding this doctrine, and under the influence of his authority and dogmatic teaching it had come to be almost universally accepted. Various names were given to these exudations, but whether they were described as pelvic cellulitis, or parametritis, or periuterine phlegmon, there was practically no difference of opinion as to their seat. For some time Bernutz himself participated in the common belief. The fatal termination, however, of two cases under his own care served effectually to change his views, and enabled him "to prove incontestably that the periuterine tumour,

which during life presented all the symptoms of the so-called periuterine phlegmon, was not situate in the cellular tissue at all. In the necropsies in question the tumour, which even after death presented all the usual signs, was seen to be formed by the pelvic viscera matted together by peritoneal adhesion." This discovery was one of such immense importance that it gives an historic interest to the two cases that led to it. I have only time here to mention the main facts of the first of these. It was that of a young woman of 18, who had led an irregular life for twelve months, and was admitted to the hospital for severe pain in the lower part of the body. The pain had seized her suddenly on the eighth day of an attack of gonorrhœa, and was daily increasing. In addition to the usual signs of acute gonorrhœa there was discovered on examination a resisting body above the vaginal roof, extending all round the cervix except on its right side. Pressure on the tumour caused great pain. Rest, and the application of leeches to the left iliac region, gave some relief, but the swelling remained the same, and a few days later the pains returned. When she had been some weeks in the hospital she had an attack of jaundice, and then pleurisy with effusion—first serous, and, after the first tapping, purulent. She died three months after admission. On *post-mortem* examination the bladder, uterus, broad ligaments, and sigmoid flexure were all found matted together by old adhesions. There was no cavity on the left side of the pelvis, the broad ligament being united to both bladder and rectum. On separating these adhesions an intraperitoneal abscess was opened. The uterus was bound posteriorly to the rectum. The Fallopian tubes were highly congested. The right one contained two collections of pus, one at the fimbriated extremity, which was dilated and firmly adherent to the ovary. The left tube contained no pus, but was impermeable. The ovaries were both healthy. The cellular tissue of the broad ligaments and uterus were perfectly healthy. The supposed phlegmon did not exist.

This case occurred in 1856, and was published in 1857; but it was not until 1862 that Bernutz, in conjunction with his friend M. Goupil, published in a collected form that marvellous series of clinical memoirs which had appeared from time to time in the *Archives Générales de Médecine*, and which constitute by far the most important contribution ever made to the literature of gynæcology. The publication of that volume settled, or ought to have settled, at once and for ever, by a mass of clinical and *post-mortem* evidence that was positively overwhelming, the true nature of the majority of the swellings that had hitherto been ascribed to pelvic cellulitis. I say the majority of the swellings, for Bernutz did not, as he is sometimes erroneously represented to have done, deny the existence of a phlegmon or inflammatory exudation between the layers of the broad ligament, especially in puerperal cases; but he considered them rare as compared with the swellings due to pelvic peritonitis, and he himself never met with one in the *post-mortem* room. The conclusions at which Bernutz arrived as a result of his researches have been summarised by himself as follows: (1) That inflammation of the pelvic peritoneum is a disease very commonly met with; (2) that the tumour found after death in cases of pelvic peritonitis is formed by various intra-pelvic viscera being matted together as a consequence of the inflammation; and (3) that inflammation of the pelvic serous membrane is always symptomatic, and that it is generally symptomatic of inflammation of the ovaries or Fallopian tubes.

It might be thought that views so clearly expressed and supported by such incontrovertible evidence must needs have met at once with general acceptance, and become part of the common stock of professional knowledge; but they did nothing of the kind. For twenty years the old views continued to be generally taught, and even yet they form the basis of much of the current teaching and practice in regard to pelvic inflammations. The late Dr. Matthews Duncan, indeed, recognised the great value of the papers of Bernutz, but he only accepted his doctrines in a very modified form. He expressed the conviction that those papers would "form to the future medical historian of the subject one of the chief landmarks in it." "Bernutz," he says, "pointed out the error of the cellulitic theory, and of a great part of Nonat's defence of it. He tried to show that the so-called periuterine phlegmons of that author were not phlegmons at all,

but results of pelvic peritonitis. He appealed to the evidence of *post-mortem* investigation, and, so far as he went, successfully and triumphantly. Cases, with exactly the symptoms and signs of cellulitis or parametric phlegmon, he showed, by necropsies, to be cases of pelvic peritonitis." But while giving him credit to this extent, he thought that Bernutz, in forming his conclusions, had forgotten that all questions cannot be settled by necropsies, and he believed him to have been "carried away by his enthusiasm into indefensible arguments for the frequency of pelvic peritonitis and the rarity of parametric phlegmon."¹

If Dr. Matthews Duncan, with his usually keen and generous appreciation of sound scientific work, thus failed to estimate the results of Bernutz's observations at their true value, I suppose it is no great wonder that other and lesser men failed to do so. I will not detain you by inquiring into the reasons for this widespread neglect, further than to remark that the new views might possibly have attracted more attention had it been made to appear that they had any important bearing upon treatment. Many years, however, were destined to elapse before the discoveries of Bernutz found a practical application, and even then it was not, in the first instance, as a direct result of those discoveries, but as an outcome of that surgical enterprise which, just as it has opened new avenues of knowledge and new possibilities of relief and cure by operative treatment in the case of the kidney, is doing the same for other organs of the body, and notably for those which are chiefly concerned in the production of pelvic peritonitis.

In the year 1872, the operation for the artificial induction of the menopause, by the removal of the healthy Fallopian tubes and ovaries, was carried out by three operators of different nationalities at dates so closely following one another, and yet at places so remote, that it was practically impossible for there to have been any sort of concerted action. On July 27th, Hegar performed the operation at Freiburg in a case of ovarian pain and menorrhagia. Five days later Lawson Tait operated at Birmingham on a case of uterine myoma with excessive hæmorrhage; and within three weeks of Hegar's operation, a highly respected American gynecologist, Dr. Robert Battey, of Rome, Georgia, performed a similar operation on a patient with hystero-epilepsy and amenorrhœa. It would be quite profitless under these circumstances to inquire which of these three distinguished men is able to establish the strongest claim to priority. At the instance of Dr. Marion Sims, the operation has been named after his compatriot Dr. Battey, who appears to have conceived the idea of the operation seven years before he had an opportunity of carrying it out, and who certainly can claim the credit of having been the first to publish his case, and to bring the whole subject before his professional brethren for discussion.

In the course of two or three years the number both of operations and operators began rapidly to multiply, so that at the International Medical Congress held in London in 1881 Battey showed a table of 193 complete and 25 partial operations. The general death-rate of these was 18 per cent., but individual operators were beginning to show a greatly diminished mortality. Tait, for example, reported 26 consecutive cases with but a single death, and Savage reported an equal number with no death at all. With such results as these it was to be expected that the scope of the operation would soon be widened, and instead of being limited to the removal of the normal organs, would be extended to cases where the uterine appendages were themselves the seat of the disease. And this is precisely what took place. In the years 1879 and 1880 Hegar, in Germany, and Lawson Tait, in this country, operated on several patients for the removal of inflamed ovaries and tubes, and then it was that the accuracy of the observations of Bernutz came to be fully recognised, and his apparently barren discoveries to bear their legitimate fruit. The knowledge at which he had arrived by *post-mortem* investigation was now arrived at in a different, but at least equally conclusive, way by actual inspection and touch during life. In many respects, indeed, the evidence thus obtained in the living subject was more valuable than the evidence afforded by *post-mortem* examination, for in the *post-mortem* room the disease has often advanced too far to enable us to trace its origin and study its

various stages, and, moreover, the parts having lost their vital tonicity no longer hold precisely the same relation to each other, or convey the same impression to the touch, that they did during life. Nevertheless, each of the two sources of information possesses advantages of its own, the two fitly supplementing one another; and when the lessons taught by the two methods coincide, we are in a position to accept the evidence as conclusive, and to welcome the information thus obtained as a positive and unassailable addition to our knowledge.

PELVIC CELLULITIS COMMONLY A SECONDARY DISORDER.

During the past five or six years I have performed abdominal section in nearly one hundred cases that in the earlier part of my professional career I should have regarded as well-marked examples of pelvic cellulitis—namely, cases in which the mobility of the uterus was more or less impaired, and in which hard, irregular, fixed swellings could be felt above one or both lateral fornices of the vagina, and often extending into Douglas's pouch. In the vast majority of those cases I found no evidence of cellulitis at all, and, where it did exist, it was clearly secondary to the salpingitis and peritonitis which constituted the principal lesions present. In no case was there any inflammatory exudation in the cellular tissue of the broad ligament or elsewhere sufficient to form a distinct tumour recognisable as such on bimanual examination. In some cases of chronic suppurative inflammation of the uterine appendages, the broad ligaments were the seat of a certain amount of thickening from inflammatory exudation, but this obtained only in the neighbourhood of the suppurative disease, and the thickening seldom exceeded one-eighth of an inch, and even in extreme cases never exceeded half an inch.

PELVIC INFLAMMATION USUALLY A PERITONITIS ORIGINATING IN SALPINGITIS.

The usual state of things disclosed on opening the abdomen in these cases is as follows: The contents of the pelvis are generally concealed from view by the great omentum, which has been drawn down so as to cover them in anteriorly, and has contracted adhesions to the peritoneum as it becomes reflected on to the anterior abdominal wall, as well as to the uterus and other pelvic viscera. Along with this screen, as it were, of omentum it is not unusual to find coils of adherent small intestine. On separating and drawing aside this screen, one side, or it may be the whole, of the posterior part of the true pelvis is seen to be occupied by what appears to be an indistinguishable mass of matted viscera. The uterus itself is sometimes implicated in the mass, but in other cases its upper part at least is free. Tracing the Fallopian tube outwards from the uterine cornu on the side of the disease, it is often found to be normal in size for the first half-inch or so, and then to become involved in the adherent mass. This mass, on being separated and brought into view, is invariably found to consist of the uterine appendages more or less altered by inflammation. There is always salpingitis, and the inflamed and thickened tube usually enfolds the ovary. In a large number of cases the ovary itself is normal, except that it is universally adherent. In other cases it is in a condition of incipient cystic degeneration. I do not allude to the harmless condition, sometimes spoken of as incipient cystic degeneration, in which several Graafian follicles distended with serum cause transparent projections from the surface of an otherwise normal ovary, but to that condition in which true cysts are found, varying in size from a marble upwards, and in which the normal structures of the organ have become more or less replaced by them. Whenever the lateral swelling is so large as to push the uterus to the opposite side, this condition of the ovary may be suspected. In many cases the cysts in the ovary are found to be in a state of supuration, their contents having presumably become infected from the inflamed and suppurating Fallopian tubes. Of primary ovaritis, either acute or chronic, which is supposed by some authorities to be a common affection and a frequent cause of pelvic peritonitis, I have scarcely (apart from tuberculous disease) met with a single example.

With regard to the tubes, the first point to be noted is that the evidences of peritoneal inflammation are always most marked in the neighbourhood of the fimbriated end, showing

¹ *Perimetritis and Parametritis*, Edinburgh, 1869, pp. 90–101.

clearly that the pelvic peritonitis has originated by direct extension from the mouth of the inflamed tube or by the escape of morbid secretions therefrom. Where the secretion from the inflamed tube is chiefly mucous in character, with only a slight intermixture of pus corpuscles, the intensity of the inflammation around the abdominal ostium is shown by the extreme density of the adhesions at that spot and nothing more. Where the secretion, on the other hand, is wholly purulent, one of two things is found to have happened, according to whether the fimbriated end remains patulous or has become closed. In the former case, an intraperitoneal abscess is found, encysted among adhesions, and fed by the purulent discharge issuing from the open mouth of the suppurating tube.² In the latter case the pus, accumulating in the occluded tube, distends it, sometimes uniformly but more often irregularly, forming a series of loculi or pouches full of pus here and there along the tube, in either case constituting the condition known as pyosalpinx.

The changes in the walls of the tube are as follows: In acute cases the mucous membrane, including the projecting longitudinal folds, is found highly congested and swollen and covered with purulent or muco-purulent secretion; in chronic cases the condition varies according to whether the inflammatory secretions are pent up within the tube or have made their escape from the open fimbriated end. In the former case the mucous membrane is either distinctly ulcerated or covered with granulation tissue; in the latter, having got rid of its secretions, it is often found to have resumed more or less completely its normal appearance, except in the neighbourhood of the adherent abdominal ostium, where it is frequently intensely congested and œdematous. The most striking change in chronically inflamed tubes is due to the extension of the inflammation to the middle or muscular coat, which becomes greatly thickened and indurated from inflammatory exudation amongst the connective tissue elements of the muscular layer, causing irregular separation of the muscle fibres and producing a general thickening of the tube wall, which often measures one-eighth to half an inch in thickness. The enlargement of the tube is not only manifested in an increase in its width and circumference, but frequently also in an increase in its length; and as this increase in length takes place within a confined space, it frequently results in the tube becoming doubled and folded upon itself, forming an intricate series of convolutions. Sometimes the convolutions take a sharp turn, forming knuckles on the external aspect, and shutting off by the suddenness of the bend one portion of the canal from the other.

In advanced cases further changes may take place; the pus-containing tube becoming adherent to a cystic ovary, its wall may ulcerate and perforation occur, permitting the escape of the purulent contents of the tube into the interior of the cyst and the formation of tubo-ovarian abscess. The result of such an accident is a sudden and most violent attack of pelvic peritonitis, placing the life of the patient in imminent peril. It must not, however, be supposed, whenever an inflamed and purulent tube is found suddenly to lead into a large abscess cavity, giving an appearance that has been happily compared to that of a retort, that the condition is necessarily one of tubo-ovarian abscess. I have recently pointed out that a tubo-ovarian abscess may be simulated by a sudden expansion of the tube itself, forming a curious and interesting variety of pyosalpinx. There are two examples of this in the museum of St. Thomas's Hospital, in one of which the true nature of the specimen was proved beyond cavil by the fact that both the patient's ovaries were seen during the operation to be absolutely healthy; they were not even adherent. I cannot produce the ovaries in proof of my statement, for they still remain in the body of the patient, who made an excellent recovery.

COMPLICATIONS OF SALPINGITIS.

Amongst the secondary changes that occur as a consequence of these inflammatory processes, there are one or two of such importance as to call for special mention. When the salpingitis is unilateral, it is not at all unusual to find that

² Pelvic abscesses bursting into the rectum or into the vagina are almost always of this nature and not of cellulitic origin, as has been commonly supposed.

the peritonitis spreading from its place of origin, the fimbriated end of the inflamed tube, has passed over to the other side of the pelvis, involving the healthy uterine appendages of that side in a mass of adhesions. Under such circumstances closure of the abdominal ostium of the healthy tube is apt to occur, and to be followed by the development of a hydrosalpinx, which, though then simply an incident in the course of an attack of pelvic peritonitis, may in its turn itself become a source of suffering and ill-health. In my experience this is the commonest mode in which hydrosalpinx is developed. Hæmatosalpinx, as a complication of salpingitis, is much more rare. In the great majority of cases hæmorrhages within the tube and hæmatocœles of tubal origin are the consequence of tubal gestation, but now and then they occur as incidents in the course of the inflammatory processes I have just described, and quite independently of gestation. An instance of this kind is recorded in the recently issued volume of the *St. Thomas's Hospital Reports*. There are, of course, many other secondary changes met with in old-standing cases of pelvic peritonitis besides those I have enumerated, but I have not now time to dwell upon them. The outcome of a knowledge of the facts I have laid before you is to give to the Fallopian tubes an enormous importance in the pathology of pelvic inflammation.

It has been somewhat the fashion of late to sneer at those who have become impressed with the pathological importance of the Fallopian tubes as the victims of a mere passing craze, who can see nothing but diseased tubes in every gynecological case that comes before them. The phenomenon is one that need not excite the least surprise or arouse the least resentment. It is a matter of common experience that those who are left behind by the advancing tide of knowledge, whether it be from prejudice, or lack of opportunity to observe, or the inability to take in new ideas which is one of the heaviest penalties of advancing years, are tempted to deny that the advance is real, and to ridicule or denounce those who accept it. When the ophthalmoscope was first introduced into this country, a paper was read on the subject before a provincial medical society, when one of the leading oculists of the town, a man of large experience and great ability, rose and said that it was perfectly absurd for anyone to come there and describe various appearances seen at the back of the eye; the back of the eye was black, and there was nothing more to be said about it. There always were and always will be people like this old oculist, ready to assert that where they can see nothing but blackness, nothing but blackness exists. Such men are to be accepted as an inevitable part of what Professor Huxley has recently called the cosmic process, and the true evolutionist consoles himself by the reflection that even they may one day be shown to subserve some useful purpose therein.

The pathological importance of the Fallopian tube is due to its peculiar anatomical position in the human subject. There is, so far as I am aware, no other mucous canal in the body similarly situated. It is exposed to constant risk of infection, owing to the direct continuity of its lining membrane with that of the uterus and vagina, so that it is almost by a miracle if it escapes in any case of acute infective endometritis, whether septic or gonorrhœal. But there is the widest possible difference between the danger of an acute endometritis and an acute endosalpingitis. In the former the patency of the cervical canal provides a natural outlet for the morbid secretions; in the latter there is no such natural outlet. The uterine end of the Fallopian tube has, even under normal circumstances, a lumen only just large enough to admit a fine bristle. It will, therefore, be readily understood that it only requires a very slight amount of swelling of the mucous membrane, such as is probably inseparable from the mildest inflammatory attack, to block up that end completely. Hence, as an outlet for inflammatory secretions, the uterine orifice may practically be regarded as non-existent. The position of matters, therefore, is that either there is no outlet at all for the morbid secretions, owing to the closure of one orifice by the swollen mucous membrane and the closure of the other by adhesions, or the only outlet is through the abdominal ostium into the peritoneal cavity. It is this fact of the absence of a safe outlet for inflammatory products that makes an attack of suppurative salpingitis so much more serious a matter than an equally severe attack of

suppurative endometritis, and that invests the inflammatory affections of the Fallopian tube generally with such an exceptional and grave importance.

IMPROVEMENTS IN DIAGNOSIS.

But it is not only in pelvic pathology that we have been recently enabled to add to our knowledge; our powers of diagnosis have been enlarged. A little time ago the idea of being able to map out and examine the uterine appendages in the living subject would have been scouted with derision. To-day I should be ashamed for any of my clinical clerks to be found, at the close of their three months' tenure of office, unable to diagnose, under reasonably favourable circumstances, the size, position, consistence, and mobility of the Fallopian tubes, even if not of the ovaries as well, with a fair amount of accuracy. The improvement has been reached in the only way that improvements in diagnosis can be reached, namely, by habitually making as accurate and careful a diagnosis as we are capable of making, and bringing it to the test of actual fact whenever an opportunity offers. In the case of many diseases such opportunities only occur in the *post-mortem* room, but in the case of the diseases we are now considering frequent opportunities have of late been afforded also in the operating theatre, with the result that the diagnosis of these diseases is in a fair way of being revolutionised. Considering how much there is still to be learnt, it behoves every gynaecological operator to be careful not to miss a single opportunity of thus adding to our knowledge. Operators who are content with a mere rough-and-ready examination of a case before operating, and who confessedly leave anything like a detailed diagnosis to be made after the abdomen has been opened, seem to me, not only to act unfairly to their patients, but deliberately to throw away invaluable opportunities of improving their own powers of diagnosis and of advancing professional knowledge.

In order to make a satisfactory bimanual examination in a suspected case of pelvic inflammation I believe it to be essential that the patient be in the dorsal position, with the knees flexed and separated, the head supported on a single pillow, and the shoulders not raised, as is generally recommended, but lying flat on the couch or bed. To avoid strain (and no examination can ever be satisfactory in which the posture of the examiner involves the least strain) the examiner should stand or sit directly in front of the patient. Only in this way can the full advantage of the bimanual method be obtained. I know that it is usually recommended, more particularly in Scotland, that the examiner, even when the patient is in the dorsal position, should stand at the patient's right side whilst conducting the bimanual examination. But consider for a moment what that involves. The two hands are at right angles to each other. By facing the patient this awkwardness is avoided; the hands and forearms are parallel to one another, and the necessary manipulations are thereby carried out more effectually because more easily. With regard to the respective merits of the dorsal position and the left lateral, or English obstetric, position for purposes of bimanual examination, there seems to me really no room for discussion. No one who has once accustomed himself to place his patients in the dorsal position, and has experienced the vastly increased ease with which the deeper parts of the pelvis can be thus explored, will ever willingly revert to the older plan. It has been said that the dorsal position is less modest than the position on the left side, and therefore more trying to the feelings of the patient. But is this really the case? Of course, I can readily understand that a patient who has been accustomed to be examined on the left side, and is for the first time placed in the dorsal position, will feel strange and uncomfortable and disposed to resent the unaccustomed posture. Similarly I can quite enter into the feelings of a medical practitioner who, having been in the habit of attending obstetric cases with the patient in the left lateral position all his professional life, and seeing for the first time an examination conducted with the patient lying on her back, is disposed to regard the proceeding as indelicate. But all this merely emphasises once more the marvellous force of habit. There is nothing inherently indelicate in the dorsal position, and an examination can be conducted with just as much regard for the feelings of the patient when she is lying on her back as when she is lying

on her side. When a woman has made up her mind to submit to the ordeal of an examination at all, she has done so because she wishes to know what is the matter with her, and she would certainly prefer, if the question were put to her, to be examined by that method which would best enable the examiner to form a correct opinion and to give her the information she seeks.

IMPROVEMENTS IN TREATMENT.

But we must not forget, in our eagerness after a more correct pathology and a more refined diagnosis, that the reason of our existence as practitioners of the healing art is to relieve suffering, and where possible to cure disease. "There is one part of their business," says Oliver Wendell Holmes, in one of his inimitable essays, "which certain medical practitioners are too apt to forget; namely, that what they should most of all try to do is to ward off disease, to alleviate suffering, to preserve life, or at least to prolong it if possible. It is not of the slightest interest to the patient to know whether three or three and a-quarter cubic inches of his lung are hepatized. His mind is not occupied with thinking of the curious problems that are to be solved by his own necropsy; whether this or that strand of the spinal marrow is the seat of this or that form of degeneration. He wants something to relieve his pain, to mitigate the anguish of dyspnoea, to bring back motion and sensibility to the dead limb, to still the tortures of neuralgia. What is it to him that you can localise and name by some uncouth term the disease which you could not prevent and which you cannot cure? An old woman who knows how to make a poultice, and how to put it on, and does it *tuto, cito, jucunde*, just when and where it is wanted, is better—a thousand times better in many cases—than a staring pathologist who explores and thumps and doubts and guesses, and tells his patient he will be better to-morrow, and so goes home to tumble his books over and make out a diagnosis."

I have called attention in the earlier part of this address to some of the indirect benefits that have accrued from operations undertaken for the removal of the uterine appendages, but I have said nothing as yet as to the value of these operations considered in regard to their primary object—namely, as a mode of treatment. It is desirable, in the first instance, to make a clear distinction between the operation for the removal of the uterine appendages when there is no obvious lesion of either tube or ovary, and the same operation when those parts are the seat of manifest disease. Probably owing in some measure to the fact that the one operation grew, as it were, out of the other, the two operations are continually being confounded both by speakers and writers, to the great perplexity of the uninitiated. The scope of Battey's operation—that is, the operation for the artificial induction of the menopause, never very wide, has become narrower and narrower as experience has increased, and is now practically restricted to the treatment of certain cases of uterine myoma. As a means of relieving neurotic conditions, it is so terribly open to abuse, it raises so many difficult questions that are better left undisturbed, and it has proved so uncertain and disappointing in its results even when legitimately applied, that it is now thoroughly and in my opinion properly discredited. At the same time we must never forget that it is to the men who first conceived and carried out Battey's operation that we owe not only a method of dealing with uterine myomata that has saved many a life, but also that further development of pelvic surgery, of which I come now to speak, and which in my opinion is one of the greatest triumphs of modern gynaecology. I refer, of course, to the operation for the removal of the uterine appendages when they are the seat of serious disease. I have so recently had an opportunity of laying before the profession at considerable length the grounds on which I feel myself justified in advocating and practising this operation, that it can scarcely be necessary for me, even if there were time, to enumerate them upon this occasion. I propose, instead of entering into an elaborate argument, to relate, in briefest outline, one or two cases in order to illustrate and contrast the result of operative and non-operative treatment.

OPERATIVE AND NON-OPERATIVE TREATMENT CONTRASTED.

In August of last year, a thin, emaciated woman, aged 37,

but looking much older, was admitted to the South-Western Fever Hospital, in London, supposed to be suffering from enteric fever. She had lived a dissolute life, was living apart from her husband, and showed well marked evidence in the palate of having suffered severely from constitutional syphilis. There was a distinct history of gonorrhœa. She had been ill for three weeks with headache and loss of appetite, and for four days before her admission had suffered from pain in the abdomen and diarrhœa. The abdomen, on admission, was somewhat distended and tympanitic, the tongue dry, the pulse rapid and feeble, and the temperature 103° . There were no spots, and the chest sounds were normal. On vaginal examination, the whole of the posterior part of the pelvis was found to be occupied by a firm, hard mass. Early in the morning of the second day after her admission, she passed a large quantity of extremely offensive purulent fluid from the vagina and, four hours later, she died. At the necropsy a considerable quantity of semi-purulent fluid was found in the abdominal cavity, the contents of which were much matted together by adhesions, especially towards the pelvis. The uterus was somewhat enlarged and its mucous membrane hyperæmic. Both Fallopian tubes were found thickened, enlarged, and full of pus. They were curled back upon themselves, and their fimbriated ends, closed by inflammatory adhesions, were adherent to one another in Douglas's pouch. The remainder of the back of the pelvis consisted of a large abscess cavity, containing much offensive pus. This abscess cavity was found to communicate with the interior of the right Fallopian tube, through an ulcerated opening in the tube wall; it also communicated with the general peritoneal cavity and, through a small round opening in the posterior fornix, with the vagina. The ovaries were of normal size and imbedded in the walls of the abscess cavity. There were no signs of intestinal ulceration or of disease of the cæcum or its appendix, and the other organs of the body were healthy.

Here is another and still more recent instance of death resulting from rupture of a pyosalpinx. On April 8th of the present year there was admitted into the medical wards of St. Thomas's Hospital a very stout married woman, aged 41, with symptoms of general peritonitis, and in a state of collapse as though from intestinal perforation. For some months she had had an offensive vaginal discharge. Her present illness had commenced a day or two before admission. She was practically moribund when she arrived at the hospital, and died in a few hours. At the necropsy there was evidence of general peritonitis, most intense in the pelvis. The abdomen contained about a pint of highly offensive pus. Both Fallopian tubes were greatly and about equally distended, being equal in size to a piece of intestine. They were much distorted, and doubled backwards on themselves. Each of them was closed at both ends, and contained about an ounce of the most intolerable fetid pus. On the anterior wall of the left tube, somewhere about its centre, was a perforating ulcer through which pus could be squeezed. There was no other serious disease in the body, except that the mucous membrane lining the cavity of the uterus was intensely inflamed, and a small, soft, ulcerated, and gangrenous polypus projected into it from the left side of the fundus.

Both these are examples of chronic disease ending fatally. Occasionally, however, tubal disease terminates fatally at a much earlier stage, as in the following terribly sad case, the notes of which have been placed at my disposal.

A healthy and well-built young woman, aged 27, was, a few years ago, admitted into one of the wards for infectious disease at St. Thomas's Hospital, with acute but ill-defined febrile symptoms, which had commenced four days previously. She had been nursing some cases of diphtheria, and, as she had slight soreness of the throat, with shivering, severe headache, vomiting, and aching of the limbs, it was thought that she had caught the infection. Her temperature on the day of admission was 102° , the day following it was 104° . On the third day she complained of some abdominal pain, and the evening temperature was 104.6° . At the end of a week the abdomen became somewhat distended. From that time the symptoms were those of general peritonitis. She died on the thirteenth day after admission. The temperature an hour before death having risen to 105.6° . At the

necropsy there were evidences of acute general peritonitis, most marked in the pelvis. There was little or no fluid in the abdominal cavity, but abundance of lymph and much glueing together of the intestines and other abdominal viscera. In the pelvic cavity there was an ounce or more of thick pus. The uterus was much involved in adhesions, but otherwise healthy. Both Fallopian tubes were acutely inflamed, and, upon making pressure upon them, thick yellow pus in considerable quantity exuded from the outer extremity of each. The inflammation was most marked on the right side. The right ovary was larger than the left, and appeared congested; the left was quite healthy. All the other organs of the body were healthy, except that the lungs were somewhat congested and œdematous.

Such is a brief account of three cases of purulent salpingitis that proved fatal owing to escape of the contents of the tube into the peritoneal cavity; in two instances through a rupture of the tube wall, and in the third through the still unclosed fimbriated extremity of the tube.

I propose now, by way of contrast, to relate three cases of very similar character to the foregoing, in which the diseased tubes were removed by operation. I have told the story of the first case before, but it will bear to be told again.

A young woman aged 28, with a worn pale face and wretchedly thin, was admitted into hospital on account of severe pain in the lower part of the abdomen with pyrexia. She had been married five years, but had been separated from her husband for three years on account of his intemperance and cruelty, and during this time had had to maintain herself and her two children by dressmaking. Only once during the three years of their separation had the husband and she cohabited, and on that occasion, which was twelve months before her admission, he infected her with gonorrhœa. In a few weeks she became too ill to continue at her work, and had to give up her home and go into the parish infirmary with her children. She came out in three or four months, but soon had to return. She again took her discharge, and resumed her occupation. Her health, however, soon gave way. She suffered great pain in the lower part of the abdomen, in the groins, and in the back, and eventually sitting became so difficult and painful that she had to relinquish her employment, and for some weeks before admission she had subsisted on the generosity of friends. The pelvis was filled with a hard, irregular mass, especially to the right of the uterus and behind it. The uterus was of normal size, pushed over to the left of the middle line, and fixed. Abdominal section was performed. The posterior part of the pelvis was occupied by a mass of adherent viscera, difficult to recognise and separate. Both tubes were thickened and much distended, and each communicated, by its open fimbriated end, with an intraperitoneal abscess, fed, evidently, from the suppurating tubes. The patient, notwithstanding she had to run the gauntlet of a severe attack of pneumonia after the operation, eventually made an excellent recovery, lost her pain and ill looks, and became a picture of good health.

The next case I have selected is that of a young married woman, aged 24, the mother of three children, who was admitted complaining of severe pain in the back and left iliac region, the symptoms having come on suddenly four days previously. Her temperature varied from normal to 102.2° . She had had a similar attack three months previously, but in the meantime had felt fairly well. The pain disappeared after the patient had been twenty-four hours in the hospital, but as there was in each posterior quarter of the pelvis a dense irregular mass, a portion of which could be felt as a tortuous and thickened tube, and as it appeared certain the case was one of chronic purulent salpingitis, it was thought the safest plan to operate. The decision was a fortunate one for the patient. The operation was performed. Both tubes were found irregularly dilated, occluded, and full of pus. Their walls were a quarter of an inch thick, and so deeply ulcerated that in places only the peritoneal coat remained. On the anterior surface of the right tube, at a point where the wall was specially thin, there were two small perforations through which pus was escaping. Probably these openings were made during the separation, but it was manifest that even if perforation had not already taken place, it was on the point of doing so. A delay of even a few days would have

exposed this patient to a very serious risk. She made an interrupted recovery, and, when seen sixteen months later, looked so stout and well as to be scarcely recognisable. She had had no pain since the operation, and was in better health than she had been for several years.

The third and last case I desire to bring before you resembles in some of its features that of the nurse whose case I related in the first series. A chambermaid at a City hotel, aged 24, reported one evening to the manager that she had been violated by a stranger staying in the hotel. The offender was summarily expelled, but the girl gave notice to leave. During the five weeks she remained in her situation she had some pain on micturition and a vaginal discharge. The morning after she left she felt pain in the right wrist. Three days later she was admitted under the care of one of my colleagues at St. Thomas's Hospital, supposed to be suffering from acute rheumatism. She had pain and tenderness in several of her joints, without obvious effusion or redness of skin. Her temperature was frequently as high as 102°, and sometimes reached 104°. Five weeks after admission a vaginal discharge was noticed, and a few days later a suspicion already existing in my colleague's mind that the case was not one of ordinary acute rheumatism was confirmed by the patient's complaining of pain in the lower part of the abdomen. I was thereupon asked to see and examine her. I reported that she was suffering from gonorrhœa, with pyosalpinx, pelvic peritonitis, and pyæmia. She was transferred to my care, and a week later I operated. The pelvic viscera were matted together by peritoneal adhesions. The Fallopian tubes were thickened and full of pus. Behind the uterus and walled in by adhesions was an abscess the size of a Tangerine orange fed by the two Fallopian tubes through their open fimbriated ends. The result of the emptying of the abscess and removal of the tubes was immediate and striking. The pyæmic symptoms rapidly disappeared, the parts concerned in the operation healed without a trace of suppuration, and the patient made a complete and excellent recovery.

Can there be any reasonable doubt that the lives of the first three of these six patients might have been saved by timely operation, or that the lives of the last three were so saved?

Do not let me be misunderstood. I do not for a moment suggest that every case of inflamed Fallopian tubes should be operated upon. On the contrary, I am of opinion that most of them recover without. But there is a large residuum of cases, most of them chronic, some few acute, in which nothing but an operation can save life. And there is a still larger number of cases where a timely operation rescues the patient from years of misery, incapacity, and chronic invalidism. Every case has to be considered individually; no rules can be laid down which shall be of universal applicability. The woman who has her bread to earn or who is the busy wife of a working man, cannot afford the luxury of an illness extending over several years, and an operation would be justifiable in her case when it would not be in the case of her more well-to-do sister. The operation is, in short, not the one Heaven-sent remedy superseding all others, but an invaluable addition to our resources which, when it is adopted in suitable cases, under a due sense of responsibility, and after full explanation to the patient and her friends both of the immediate risk and the ultimate physiological results, is capable of achieving triumphs as remarkable as any operation in surgery.

NORTH-WEST LONDON HOSPITAL.—The Maharajah of Bhaunagar has sent a donation of fifteen guineas to the North-West London Hospital, Kentish Town Road, in aid of the general purposes of the charity.

ST. JOHN AMBULANCE BRIGADE.—On Saturday, August 5th, St. John Ambulance Brigade commenced a week under canvass for the fourth year in succession. Members of the London, Northampton, Babbington, Wembley, and St. Albans districts mustered at the headquarters of the brigade at St. John's Gate, Clerkenwell, and accompanied by a number of cyclists, nurses, and ambulance wagons, together with three bands, marched to the encampment, where twenty-six bell tents, two hospital tents, and three tortoise tents had been pitched, the accommodation being for 200 men.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PSYCHOLOGY.

At the Annual Meeting of the British Medical Association, held in Newcastle, August, 1893.

By T. W. McDOWALL, M.D.,

Lecturer on Psychological Medicine at the University of Durham.

THE EFFECT OF THE RECENT CHANGE IN COUNTY GOVERNMENT ON ASYLUMS AND THE INSANE.

WHEN the Council of our Association was pleased to ask me to preside in this Section, the proposal was with much gratitude accepted, as it would afford me the opportunity of welcoming many old friends to this neighbourhood, and also because it would give me a chance of putting into coherent shape my ideas on some matters relating to the treatment of the insane, about which I had often talked with my more intimate friends, and which seemed to be of considerable importance, especially at the present time. To make preparation for this address, I set about collecting material, and had begun to arrange it, when a whirlwind of affliction overtook my household, and since that time I have not been able to devote that energy which is requisite for the preparation of an address worthy of this occasion. But if in a few sentences I am able to state some of the lessons learned during a long official life, my presence here to-day may not be quite useless, especially to my juniors, who will be carrying on the work when I and my contemporaries have disappeared.

The times in which we live are characterised by such unwholesome and positively morbid activity, and by such an irrepressible tendency to talk and write, that it is really past the wit of man to discover a subject which is completely fresh. Every topic that one can think of has received immense attention, without in many cases our making much progress in the solution of the difficulties surrounding it, and even the more trifling have been viewed with microscopic care with a very similar result. It is not my meaning that about these questions, great and small, something may not be added at some future time to our knowledge; but I must confess to a feeling of profound disappointment at the net results of so much writing and discussion, *plus* a certain amount of honest hard work. In my opinion, it must have become abundantly evident to anyone who has honestly tried to keep up an intimate acquaintance with current lunacy literature that no man can read it all, however devoted and industrious, far less understand it, and turn it to practical use in his daily work.

Like every other department of medicine, lunacy has the misfortune of being such an enormous subject that no man can pretend to study it exhaustively, and thus each person, according to his tastes and opportunities, views it from a speculative or practical, metaphysical or physiological, racial or individual, social, legal, pathological, or other standpoint. No one can deny the charm of such study; no inquiries could be more captivating and engrossing; but we cannot hide it from ourselves that our labour has been painfully unproductive. We see so little for our trouble that we become disheartened in our struggle to attain that which never seems to come nearer; and thus the majority of us fall back on what we must regard, after all, as our first duty—the care and treatment of our patients according to general and individual experience, and the administration of our asylums—in the hope that someone more enterprising and fortunate than ourselves may come forward with some observations which may be considered real additions to our knowledge, and may be turned to some practical use. Perhaps most of us in this room have now devoted many years of our lives to the consideration of lunacy in one or more of its aspects; most of us have attempted to treat mental disease during ten, twenty, aye thirty years, and have thus gained a certain amount of experience which is invaluable to us in our daily work, but must we not admit that we have made next to no progress in solving the difficulties which so perplexed and discouraged us at the very outset of our professional career? Perhaps in