REMARKS

ON

THE DIAGNOSIS AND TREATMENT OF CHRONIC
[INFLAMMATION OF THE OVARY.

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THE diagnosis of pelvic diseases may be said to have received its first real life from Simpson; for, before his day, no such attention was given to these affections as deserved the name of systematic study. He it was who instituted precise means of physical diagnosis, and upon that he reared methods of treatment which have made a lasting impression on our practice. Like all innovations, Simpson's methods led, even in his own hands, but mostly in those of his friends and old lowers, to an excess of zeal; and the mechanical school of gynaecology, of which he was unquestionably the founder, led many to the belief that, armed with a sound, a speculum, a caustic-stick, and some new-fangled pessary, the practitioner could subdue all the pelvic ailments of women. All these aids, valuable in their way, had their enthusiastic supporters, were declined against by others, did an infinite amount of mischief in their turn, and have, finally, been referred to more limited and less hurtful fields of practice.

From the same phase of surgical development arose a number of operative proceedings, each of which has extended our means of relieving human suffering, but each of which went through a course of rough experimentalisation which is now terrible to look back upon. Simpson found that division of the cervix relieved the sufferings in certain cases of dysmenorrhœa, and enabled a few sterile women to become pregnant. Immediately, we had a flood of hysterotomies all over the world, and every sufferer had her cervix divided. Thousands of wholly unnecessary operations of this kind were, and many still are, performed, and not a few deaths occurred from the practice.

Coincident with this innovation, we had the employment of pessaries, fortunately a less hurtful practice, but carried to an extent of uselessness which is positively amusing; and other illustrations of similar strivings in the dark might be given.

From the writings of Dr. Henry Bennet and Dr. Tilt, especially the latter, another new departure was derived; for attention was directed by these authors to the possibility of the ovaries being the seat of the troubles, relief from which was sought in the treatment of the uterus.

Still another impetus, and the greatest of all, in my opinion, was given to gynaecology by Dr. Thomas Keith, who taught us that our traditional fear of the peritoneum was only a bugbear, and that it would serve us as well as any other part of the body if dealt with fairly. After Mr. Spencer Wells had gone on for twenty years operating on hundreds of cases of ovarian tumour, with a mortality of about twenty-five per cent., Dr. Keith persuaded us that ovariectomy could be done with less than six per cent. of deaths. The mortality of Dr. Keith's and my own is now as low as three per cent., and this after we have both tried the so-called antiseptic system of Lister, and have given it up as more dangerous than useful.

The outcome of such splendid work in the removal of ovarian tumours will soon be felt in very many ways, but in one it has already given evidence of another and altogether new direction for abdominal surgery. As long as Mr. Spencer Wells's example ruled our practice, and as long as his high death-rate was the best we could get, we operated on ovarian tumours only when they threatened life, and we delayed the case by mischievous tappings as long as we could. We felt that we were not justified in opening the abdomen for conditions whose severity did not threaten life. Now, however, when the removal of an ovarian tumour is fatal only when the patient has been tapped, or the operation injudiciously delayed, we are justified in performing abdominal section, not merely for the saving of life, but for the relief of suffering.

This new practice has had many good results, not the least of which is, that it is shedding a whole flood of light on the pathology of pelvic disease, and is even helping us to understand the physiology of the female sexual organs. Thus my own practice, the details of which will shortly appear in a special work, has convinced me that the usually accepted doctrine of the coincidence of ovulation and menstruation is wholly erroneous. The ovaries have nothing to do with menstruation; and though I give the opinion with a qualification which may be made necessary by further experience, so far the evidence before me is convincing that the phenomena of menstruation depend upon the

Fallopian tubes and not upon the ovaries. Finally, and of most importance for my present purpose, we are for the first time becoming cognisant of the real conditions involved in the disease recognised as chronic inflammation of the ovaries. For such a purpose as this, an abdominal section has been well said to be of as much value as a *post mortem* examination; I would say it is more valuable, for we have the recent and exact clinical record side by side with the morbid appearances.

We all know that, in its healthy state, the ovary is just like the kidney—it is an organ of the existence of which the owner is profoundly ignorant. Unless it become diseased, it gives no sensations which indicate its existence. But, when diseased, no organ of the body gives such discomfort; and its diseases are often fatal, this result being by no means confined to cystoma.

Acute inflammation of the ovaries is often fatal; and, when not fatal, it generally leads to a state which makes lifelong misery. Though I have seen cases in which no history of an acute stage could be obtained, yet, like the same disease in other organs, chronic inflammation of the ovaries generally begins in the acute form.

The origin of the acute disease is various. It may be in a simple chill, in a hæmatocele, in an attack of gonorrhœa, in some exanthematic fever, or in miscarriage or childbed. The last two sources are by far the most common, and they present two specific varieties of the disease—interstitial oöphoritis and peri-oöphoritis.

Many of the cases of acute oöphoritis undoubtedly recover, and leave no mischief behind; but, in others, the permanent mischief gives rise to suffering which to men is fortunately inappreciable. Most patients will fix a date, from which they will say they have never known what it is to be well. A woman who has had acute exanthematic oöphoritis, with permanent mischief, will say that, since she had the small-pox, scarlet fever, or acute rheumatism, she has never had her periods as she used to have them. For a time, they were more profuse than before; then they became scanty and painful, the pain increasing as time went on, lasting a week, or even two or three weeks, in every month, rendering her utterly miserable, and being relieved by nothing but narcotics. We examine the pelvis, and find, perhaps, nothing at all. We give her iron and tonics, and all sorts of drugs, and she is no better. She goes to one specialist, and he divides her cervix or amputates it, without relief; to another, who puts in a galvanic stem; to another, who applies some useless pessary; and so on, all in vain. If she marry, she does not become pregnant. If she be in the better ranks of life, rest and luxury, with constant change of scene, make her life endurable; but, if she be the wife of an artisan, her lot is one long unhappiness till the climacteric period is passed; and, during that period of trial, many of these women become drunkards.

Cases of chronic disease arising from acute peri-oöphoritis give usually more specific indications, at least to one accustomed to pelvic examinations. Suppose that it has arisen in some attack during the puerperal month, the patient will say that she was ill with "inflammation of the bowels", and was a long time in getting about; that she has never been pregnant since, and is hardly ever free from pain. The majority of these cases occur in primiparous women; and therefore the first feature in the case to be noticed is often that the patient has had one child soon after marriage, and has never again become pregnant. If the patient be living a married life and bearing children, that alone is proof that she is not the victim of this disease, for it uniformly unsexes the sufferer as far as maternity is concerned. It also unsexes its victims for marital life in all severe cases, for they cannot endure it; and in the milder cases they cannot get well, as long as they have to submit to it.

As far as general symptoms are concerned, they are rarely free from pain; and this is generally intensified during the menstrual week, for the reason that the tubes are always involved. In most of the cases, the tubes are chiefly at fault; for I often find the ovaries cystic or shrivelled, so as to be of little account in explaining the symptoms. There is always pain in the left side in the groin; for, if one ovary be affected, it is sure to be the left. In the exanthematic cases, we have to trust almost entirely to the story of the patient to subjective symptoms; and therefore, in this class of cases, mistakes will be made until we arrive at a more perfect method of diagnosis. In the second class of cases, however, the objective conditions are easily recognised by the practised finger. A fixed and tender mass, composed of the enlarged and probably adherent ovary, or of the occluded and distended tube, will be felt on one or both sides of the uterus through the vaginal *cul-de-sac*; and the peculiar sickening pain felt by the patient when the mass is touched will afford conclusive proof as to its nature.

What is to be done to relieve such cases? The general principles of treatment are those applicable to all such conditions, in whatever part of the body they are met with. The first of all is rest; but, unfortunately

we cannot rest the ovaries or the Fallopian tubes. The former will go on trying to fulfil their function of ovulation; and every month, or oftener, the inflamed organs are temporarily congested by the occurrence of menstruation. Much may be done, however, by absolute rest in bed for the whole menstrual week, and absolute abstinence from intercourse. It is very rare, however, that we can persuade patients to carry out this regimen long enough; and hospital patients will not attend to it at all—indeed, they cannot. Counterirritation by blisters or setons is also to be tried. The only drugs of the slightest use are bromide of potassium and ergot.

After a persistent trial of these without benefit, there remains for consideration the question of removal of the diseased organs—a proceeding which is based on the soundest and most completely accepted rules of surgery. Let us take a perfectly parallel case. From some injury or gonorrhoeal infection, an eye becomes acutely inflamed, and the acute process is followed by intractable chronic inflammation of the structures of the globe—a matter of every-day occurrence. The ophthalmic surgeon removes the diseased organ, to save the patient's discomfort, perhaps the sight of the other eye, perhaps his life. He mutilates the patient most seriously in that part of the body where mutilation is most dreaded. He removes a diseased and useless structure. We remove inflamed and useless ovaries and tubes to relieve suffering, in some cases to save life; and we do not mutilate our patients half so seriously as is done in the removal of an eye. The removal of a diseased eye often fails to save the other, and is then an useless operation. Removal of a cancerous eyeball is always an useless operation, for the disease always returns.

Removal of the inflamed uterine appendages may yet turn out to be a failure for some cases; but it never can be so bad as the removal of an eyeball for cancer; and, in the hands of experienced operators, the operations have quite an equal risk. Besides this, the operation for the removal of the uterine appendages is as yet in its infancy; we have very much to learn about it; yet, in spite of this, in my hands, of thirty-five cases performed for chronic inflammation, there has only been one death, or a mortality of 2.85 per cent.—a mortality which, I have some reason to believe, is less than that of excision of the eyeball. This one death was due to causes entirely preventable, and ought not to have occurred. The operation is justified by its primary success; and my belief is that my mortality, as my experience grows, will not be more than 1 or 2 per cent.

Against the operation, various *à priori* arguments have been brought. The first of these is, that it unsexes the patient. This is a perfectly needless argument, because the disease for which the operation is done has already accomplished this, as it has rendered her barren, and has made sexual intercourse a burden which she ought not to be called upon to bear. It has been said that removal of the uterine appendages destroys sexual desire; but the uniform testimony of such patients as have given evidence is that it has no such effect. But, suppose it did, what nature can any man have who would refuse to his wife relief from suffering, because it would interfere with the gratification of his lust? I am surprised that such an argument has been seriously advanced.

It has further been alleged that useless operations will be performed. Until our powers are perfect, this is very likely. But of what operation in surgery can this be denied? Have we not heard of lithotomies being performed where there was no stone—of amputations carried out where there was no disease in the joint? How many thousands of people have been cut for squint, when what they wanted was a pair of proper lenses?

As a matter of fact, I have found that the mere serious discussion of the operation with a humbugging patient will lead to a diagnosis. If her sufferings be real, she will jump at the chance of relief; if they be not, she declines to take the risk of the operation.

But such an operation as this demands the justification of ultimate success; and here we are on the most difficult ground. The most recent summary of cases is to be found in the second volume of Agnew's *Surgery*, just published, in which 171 cases are tabulated, the work of forty operators, with a mortality of 19 per cent. This is quite a satisfactory explanation of the opposition with which the operation has been met. I should long since have condemned the proceeding, and have discontinued my practice, if my mortality had been 10 per cent. In fact, I did cease to operate for five years, because my mortality was 20 per cent. Of the forty operators in this table, there are only three who have operated on fifteen or more cases for all causes, not only chronic oöphoritis. These are:

Hegar.....	42	...	...	7 deaths
Batley.....	15	...	...	3 "
Lawson Tait.....	30	...	...	4 "
—	—	—	—	—
	87			14, or 16.6 per cent.

Increased experience, therefore, brings better primary results; and this is more than ever visible, if my whole experience is taken of 75 cases, with only 6 deaths, or 8 per cent. In my recent experience of 61 cases, there have been only 3 deaths, or 5 per cent.; and, confining it to the cases of chronic oöphoritis of 35 cases, there is only 1 death, or 2.85 per cent. It is clearly, therefore, an operation which can be justified by its primary success only in the hands of a surgeon who has large and constant practice in abdominal surgery; and, when it is done by a large number of operators in twos and threes, it can only meet with speedy and well merited condemnation.

Precisely the same kind of argument applies to its secondary results, which, in the hands of inexperienced operators, are admittedly bad. For my own results so far, I have abundant cause for satisfaction; some of my cases are yet incompletely relieved, but by far the majority of them are absolutely cured. The first patient from whom I removed an ovary for pain, nine years and a half ago, was completely relieved of her symptoms, and she remains so to this day.

I cannot burden this paper, already too long, with the recital of cases, but two I shall give as samples of what may be done by this operation; and I select them only because, having been promptly cured themselves, they have ever since been actively engaged in helping to cure others as surgical nurses. One of them is now attached to my own private staff, and has materially assisted in the recovery and cure of many of her suffering sisters.

G. B., aged 24, when placed under my care by Dr. Hammond of Nuneaton, had enjoyed perfectly good health until she was seventeen years old. At that time, she had some kind of low fever, the nature of which she did not know, and no history of it could be obtained. During its progress, she suffered greatly from pelvic pain, and was nine months in getting better, but practically she had never been well since. She had never been free from pain in the back and in both groins, the pain running down both thighs, and being greatly intensified just before and during each menstrual period. She had had a great variety of treatments, the general view being that there was some displacement of the womb. Several operations had been performed, and she wore pessaries for some months. The result of all this was, that she steadily grew worse, and for three years before being placed under my care she had been a helpless cripple.

Her general appearance was that of good health; in fact, she was distinctly robust in appearance. Her menstruation was regular, but scanty, seldom lasting more than two or three days; and during that time she described the pain as being agonising, and those who had watched her saw no reason to doubt her words. My diagnosis in this case was that of cirrhotic oöphoritis, the result of acute inflammation of the exanthematic variety. I proposed to remove the glands; but, when the whole features of the proposal were explained to her, she promptly declined to submit to it, and left the hospital. In October, however, she voluntarily returned, and begged me to operate. I complied with her request upon October 15th, and found the ovaries small, atrophied, and adherent. They afforded, in fact, typical examples of the changes effected in the glands by this disease. The tubes were also adherent, small, and atrophied. The removal of the appendages was difficult, as it nearly always is in such cases. She made a rapid recovery, and left the hospital early in November. She did not menstruate till the end of April 1880, and at that time declared herself greatly improved. I lost sight of her till the 8th September, 1881, when she came to show herself as a perfect cure. She had been for nine months, and is now, engaged as a surgical nurse in a large general hospital, is perfectly fit for her arduous duties, and says she is in perfect health. She menstruates occasionally, but entirely without pain.

J. W., aged 24, began to menstruate at 13, and was regular and free from pain till she was 19. Then she had an acute illness, and ever afterwards suffered intense pain for two days before and during the whole of her periods. The amount of loss became very profuse. She was admitted to Leicester Infirmary, and was there for many months, and obtained considerable relief, the treatment being to a large extent local, by pessaries, etc. After this she went out to service, but had to leave every situation on account of being wholly unfit for work for the greater part of the month. She was treated in several medical institutions, but obtained no permanent relief, and ended by becoming an out-door pauper. She was sent to me in July 1880, when I found the ovaries large and tender, and fixed down behind the uterus. I removed them and the tubes on July 18th, the operation being a very difficult one. The glands were both cystic, and the tubes occluded and distended. She recovered speedily, and in a few weeks entered upon her duties as a nurse. These she has fulfilled, under my directions, ever since, save in an interval, during which she had an attack

of scarlet fever. She has never menstruated since, and has remained perfectly free from pain. She is constantly engaged in nursing abdominal sections, and is one of the best nurses I have on my staff.

A CASE OF EXCISION OF THE PYLORUS FOR CANCER OF THE STOMACH.

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RICHARD S., aged 43, gas-fitter, was admitted into the Manchester Royal Infirmary, under the care of Dr. Ross, on March 13th, 1882, suffering from symptoms of pyloric obstruction, which had first shown themselves about four months previously. The patient, who was much emaciated and was rapidly losing flesh, weighing only 8 st. 7 lbs., was, at the time of admission, unable to retain any solid food, as sickness always came on about an hour after a meal, the vomited matter being at times mixed with a little blood. Fluids, however, if taken in small quantities, were retained by the stomach. The bowels were very constipated, only acting about once a week; and the motions were dark and tarry. The patient complained of considerable pain in the region of the stomach, always increased after taking solid food. On examination of the abdomen as the patient lay on his back, a hard, well defined, somewhat nodular mass, apparently about the size of an orange, could be distinctly felt close to and a little to the right of the umbilicus, corresponding in situation with the pyloric extremity of the stomach. The tumour, which was freely movable, shifted its position with the respiratory movements, and also with the position of the patient, falling to the right or left of the middle line according as he turned to either side. On making pressure over it, considerable pain was felt. No dilatation of the stomach could be detected, and the condition of the other viscera appeared to be perfectly normal. From the history and the symptoms which were present, Dr. Ross had little difficulty in diagnosing the case as one of cancer of the stomach; and as, from the mobility of the mass and the fact that it was perfectly free from any connection with the abdominal walls and adjacent organs, the disease appeared to be limited to the pylorus, the case was considered a suitable one for operative interference.

The patient, having been informed of the serious nature of the operation, and of the risks connected with it, readily gave his consent, as he was anxious to obtain relief, at whatever cost, from the symptoms from which he was suffering. Accordingly, on March 30th, he was transferred to the surgical wards, where he was fed by the mouth on peptonised milk and light custard pudding; for it was found that, as long as he was restricted to this diet, no sickness ensued. As he was very rapidly losing ground, growing daily more emaciated, preparations were made for performing the operation on April 5th. In order that the bowels might be thoroughly cleared out, simple enemata were administered the two preceding evenings, and brought away a large quantity of dark-coloured feculent matter. No food was given by the mouth for twelve hours previously.

The operation was performed at 10.30 A.M. on April 5th, according to the method adopted by Professor Billroth and Dr. Wolfser (*Clinical Surgery*, by Dr. Billroth; New Sydenham Society, p. 493), with anti-septic precautions. Chloroform was administered by Dr. Moritz, and Messrs. Whitehead and Howlett very kindly assisted me. To guard, as far as possible, against the effects of shock, the patient's extremities were carefully wrapped up in blankets, and hot bottles were kept applied to the soles of the feet and sides of the thighs and legs. As soon as the patient was fully anaesthetised, a siphon stomach-pump was passed, and the interior of the stomach was several times thoroughly washed out with tepid water. The necessity of this measure was proved by the fact that a large quantity of dark-coloured grumous matter was brought away, which otherwise would probably have escaped into the peritoneal cavity when the viscus was opened.

The operation itself may be divided into five stages.

1. *Exposure of the Tumour.*—This was effected by a transverse incision nearly six inches in length, carried across the abdomen about two inches above the umbilicus, and dividing the recti muscles. All bleeding having been arrested, the peritoneum was divided to the same extent, and the growth was then freely exposed to view. (Fig. 1.) It was found, as was expected, limited to the pyloric extremity and adja-

cent portion of the walls of the stomach, being perfectly free and movable except at its posterior aspect, where there were a few slight adhesions to some enlarged lymphatic glands which lay close to the head of the pancreas. These having been readily broken down with the finger, the pylorus and diseased mass were drawn forwards as far as possible, so as partially to protrude through the abdominal incision.

2. *Isolation of the Pylorus and Tumour from the Large and Small Omenta.*—The tumour having been drawn forwards as far as its connections allowed, the great omentum was first separated from the greater curvature of the stomach by taking it up in three portions between three double catgut ligatures, and then dividing it between each pair of ligatures with scissors. The small omentum was then separated from the lesser curvature in a similar manner, five double ligatures being used. In this way, the pylorus and diseased mass were completely freed from their connections with both omenta without any hæmorrhage; and, being quite isolated, the tumour could now be drawn forwards through the external wound, so as to lie altogether outside the abdominal cavity. This having been done, a large flat sponge was laid beneath the stomach, so as to cover in the greater portion of the wound, and in this way prevent any prolapse of the intestines, and the escape of any blood, or of the contents of the stomach and bowel, after their division, into the interior of the abdomen. By this means, the remainder of the operation was performed altogether outside the peritoneal cavity.

3. *Excision of the Pylorus and Tumour.*—This was effected in the following manner. A thick silk ligature was tied round the duodenum about an inch and a half from the pylorus, so as to prevent any extravasation of its contents from taking place after its division, and also to guard against its slipping away after its separation from the stomach. The duodenum was then divided with a pair of scissors between the ligature and the pylorus, about half an inch from the tumour and well clear of the disease. The distal portion, with the ligature round it, was then drawn over to the right side, while the stomach itself was divided. This was again effected with scissors, the division being commenced about the centre of the lesser curvature, and carried obliquely across towards the great curvature in a line slightly convex towards the left side. (Fig. 1.) In this way, the pylorus, along with

Fig. 1.—Shows Position of Growth, x, and Lines of Division, a a', of Stomach, b b', of Duodenum.

the tumour, was completely removed. The contents of the stomach, which was almost empty, were soaked up with a sponge; and its interior was carefully washed out with a weak carbolic lotion. Contrary to what one would have expected, the division of the stomach was attended by very little hæmorrhage, only two small vessels on its anterior wall requiring torsion—the result, no doubt, of the powerful contraction of its muscular coat. Nor was the division of the bowel accompanied by any bleeding, the pressure of the ligature round it probably preventing any hæmorrhage. After the removal of the tumour, a mass of enlarged glands surrounding the head of the pancreas was freely exposed to view. Some of these were removed; but, as they were found to involve the biliary and pancreatic ducts, it was thought advisable not to interfere too much with them, for fear of injuring those important structures.

4. *Closure of the Opening in the Stomach, and the Insertion of the Duodenum into it.*—The opening in the stomach was next partially closed by twenty-one silk sutures, commencing from above downwards, i.e. beginning at the lesser curvature, a small opening being left at the great curvature for the insertion of the duodenum. The silk