AN ADDRESS

ON

THE REVIVAL OF OVARIOTOMY, AND ITS
INFLUENCE ON MODERN SURGERY.*Delivered at the opening of the Midland Medical Society, at Birmingham,
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(Concluded from page 896.)

IN asking you to consider the influence which the revival of ovariotomy has had upon modern surgery, I think we may not only assume the revival as complete by the year 1865, but that, in the words of Paget, "the influence for good was not limited by the increased success of ovariotomy, but extended to every department of operative surgery, and will always continue to be felt in the whole practice of surgery." And the rapidity with which the success of ovariotomy led, again using Paget's words, to "an extension of the whole domain of peritoneal surgery," is not less remarkable than the rapidity with which ovariotomy had advanced in professional opinion between 1858 and 1865. The first extension, naturally enough, was to the removal of uterine tumours.

At first, this was only done after a mistaken diagnosis. But, before many years had passed, it was done designedly, at first only in cases of pedunculated subperitoneal outgrowths; but latterly, under conditions most unfavourable, success has been obtained in a proportion of cases very surprising even to those who, in their long experience, have many times been astonished at their own success. Nothing in the whole history of surgery can be at the same time so gratifying and so astounding as the records of Keith's later cases of the removal of uterine tumours, collected and published by his son. Taken alone, they would almost justify a general law to the effect that no woman should be allowed to die of any innocent uterine growth without attempt to save her life by operation being made. When the earlier cases of Kœberlé were criticised in the French Academy by Boinet, Richet cautioned the audience against summary condemnation of an operation not dreaded more than ovariotomy was not long before. The question since that day has been decided by experience; and if a word of caution is now needed, it is only to warn surgeons of the future that they cannot hope for success unless they prepare themselves for operation upon the living body, by taking every available opportunity of practising upon the dead body, and by a conscientious determination to study rather the true welfare of the patient than, on the one hand, how to avoid responsibility, or, on the other hand, how to advance their own renown.

It is fortunate that, in some of these cases of uterine tumour, an alternative proposal ought to be considered. Both ovaries may be removed, with the knowledge that this proceeding has been followed by atrophy of the uterine growth. This, on the part of Hegar, was the legitimate application of a principle, and the practice has often proved successful. In cases where removal of the tumour would have been impossible, or exceedingly dangerous, removal of the ovaries and Fallopian tubes has led, with far less risk, to cessation of bleeding, and more or less diminution of the morbid growth. But we must have further experience before we can arrive at a fair estimate of the relative value of the two courses of action. We have learned, however, that if the ovaries be not completely cleared away—if, having been adherent, they have been twisted or scraped away from their connections, and some small portions left—menstruation may afterwards recur quite regularly, even though both Fallopian tubes have been totally removed. I have more than once warned the profession against the capricious extirpation of the ovaries, because they are supposed to be the source of all womanly ills; and I repeat my caution, seeing to what wide-spreading evils its neglect may lead. I think it a charity to lay a checking hand on an erring judgment before it has gone too far; and I would fain save our profession from the public odium which must, sooner or later, be the penalty suffered by all, if a few indiscreet members of our body act without general sanction, or disregard general disapproval.

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I have not time to enter upon the very important question of the excision of the entire uterus, either by the vagina or by abdominal section, nor of that substitute for the Cæsarean section known as Porro's operation, nor on the operative treatment of extra-uterine foetation, and can only say a very few words about the next kind of abdominal tumour, the removal of which followed the ovarian and uterine.

I did not meet with a case of enlarged spleen which I thought justified the operation until 1865, although I had long before that been determined to do it in any suitable case. My second case was performed in this town, and I have only met with one since. I need not tell you that the example has been frequently followed by other surgeons, and there is every reason to hope that increased experience may be followed by diminished mortality.

And so with renal and perirenal tumours. Nephrotomy, nephrolithotomy, pyelo-lithotomy, and nephrectomy, terms hardly entering into surgical literature twenty years ago, define operations which are now performed in increasing numbers, and, especially to the physiologist, with a wonderful success. My colleague, Knowsley Thornton, can boast of ten nephrectomies, all by abdominal section, as well as four nephrotomies and three nephrolithotomies—the whole seventeen cases successful. These cases, and seven successful cases of pyelo-lithotomy out of eight, as lately recorded by Anderson, can only be the effect of rigidly abiding by the observance of what we now know to be the rule and criterion of good work. So, also, with a variety of solid and semisolid abdominal tumours, originating in the pelvic cellular tissue, or in the perirenal fat, or in the mesentery, the appendices epiploice, the omentum, or the abdominal wall, extirpation is effected with a loss of life so small as would have been almost incredible a few years ago.

Already, in several cases, tumours formed by peritoneal hydatids have been successfully removed. I have not time to do more than barely allude to opening of the gall-bladder and the removal of gall-stones; to the opening and drainage of hepatic abscesses, of hydatid cysts of the liver, of pelvic abscesses, and of hæmatocele; to removal of the pylorus, gastrotomy, and opening the stomach and removing a large mass of hair. In one remarkable case, Mr. Thornton removed a mass of hair weighing two pounds, which was moulded into the shape of the stomach. The incision across the greater curvature was five inches long. Fifteen deep, and fifteen peritoneal sutures were required to close it. The abdomen was closed, and the patient is perfectly well. Ten years ago, such an account would hardly have been believed. With the exception of this and one successful case by Schönborn, in all other reported cases such masses of hair in the human stomach have only been found after death.

But no one who has watched the progress of these operations, has considered the causes of death in fatal cases, and the details of the operative proceedings in successful cases, can come to any other conclusion than that one important element in the attainment of success is the scrupulous observance of the principles laid down as necessary to success in ovariotomy—not only as regards the hygienic precautions never omitted in modern surgery, but especially as to the importance of a very accurate and exact union, not only of the edges, but of the surfaces of the peritoneal coat of the viscera and of the abdominal wall. In gastrotomy, for instance, it is found that, when the stomach is attached to the abdominal wall by a single ring of sutures, the weak attachment may give way, and risk of extravasation into the peritoneal cavity may be great. But when, after dividing the abdominal wall, the parietal peritoneum is sewn to the skin all round the opening, a broad surface of visceral and parietal peritoneum may afterwards be maintained in contact by a circle of sutures, forming loops, passed through the peritoneal coat of the protruding portion of stomach, and through the whole thickness of the abdominal wall, about half an inch from the edge of the incision. Smaller fine sutures being inserted between the larger ones, a very close and secure attachment of the stomach to the peritoneal lined opening in the abdominal wall, and complete occlusion of the peritoneal cavity, are guaranteed. This done, we have an example of the carrying out in its integrity of one of the fundamental rules of practice in the operation of ovariotomy, as regards the peritoneum—surface to surface, not edge to edge merely; and it is a fact not to be overlooked, that, in gastrotomy, the result of the operation seems to depend upon it; the rule being that the cases in which it has been neglected fail, while those in which it is observed end satisfactorily. Thus the lessons learnt at an early stage of our experience in one operation have been the means of leading directly to the successful performance of the other.

This tracking of Paget's extension of the "domain of peritoneal surgery" has carried us a long way; and perhaps those who have

entered upon their career at a late stage of the successive annexations may find it not easy to understand the fascination which the subject has for their precursors, who remember its dawning, who were pioneers in realising possibility, and who now live, and are still pressing forward to the ever-receding horizon before us. Far as we have come on the way, and much as we have done, there is more to do and more to gain. If formerly we plumed ourselves at our triumphs over the peritoneum—or rather, as it really was, over our fears of the peritoneum—at our ovarian, uterine, renal, and splenic victories, and put up trophies of all those organs in our museums, we now see our way to new conquests. In proof of this, it is a satisfaction to refer to a series of cases and papers in some of the very latest English and foreign medical journals, showing how much more frequently than heretofore obstruction of the intestines is now successfully treated by operation; and that excision of the pylorus, and of parts of the intestines, is already a subject of careful experiment. This is directly traceable to ovariectomy, for one of the very earliest cases was my own union of the upper and lower ends after removing about three inches of small intestine invaded by cancer from an ovarian tumour. In Treves's paper on Excision of Intestine, you will see how firmly an operator of to-day is taking his stand on the true principles of abdominal surgery, which we have watched emerging from their obscurity. He does not ignore the teachings from experiments upon animals. He supports himself by the nine successful resections of lengths of the intestines of animals made by Madelung. He traces the failures in many operations of the same kind on the human subject to faults in the details, such as want of perfect adaptation and insufficiency of sutures. And he lays down as rules for his own action that he must separate the peritoneum from the other tissues, and introduce abundance of sutures after Lambert's method, bringing the two serous surfaces together, and avoiding the mucous membrane with the needle. A recent paper by Reichel informs us that already 121 cases of resection of intestine have been collected, the conclusion being that the two ends of the bowel should not be united at the time of the resection, but that an artificial anus should be established. This can be closed by a subsequent operation. You will probably soon see a report of a case, not yet published, where Mr. Jessop, of Leeds, cured a fecal fistula by separating the injured intestine from the abdominal wall, and uniting the upper and lower parts of the gut by suture. What I said with regard to practice on the dead body before operating on living women afflicted by uterine tumours is equally applicable to the resection of intestine. But here practice on the dead is not sufficient; and if we are not allowed to experiment on living animals in this country, we must either go abroad or practice on men and women. At my request, a young surgeon, Mr. Jennings, from whom I hope and expect great things in the future, has recently cut away portions of the intestines of dogs, uniting the upper and lower parts so as to maintain the continuity of the canal. Some of the preparations may be seen in our College Museum, and they strongly confirm the conclusion that success depends upon complete union of the apposed serous surfaces.

If I were reviewing modern surgery in general, and not limiting myself to the influence upon it of the revival of ovariectomy, I should speak hopefully of pulmonary surgery, of the draining of cavities in the lung, of incising gangrenous lung, of resection of portions of ribs to obtain contraction and closure of the pleural cavity, and of excision of parts of the lungs, or of an entire lung—even of the surgical treatment of purulent pericarditis. But these are subjects to which I can barely allude, as proofs that we do not yet know how far we may go with rational surgery, or what may be in store hereafter for surgical enterprise.

But while we modern surgeons congratulate our science on its liberation from the trammels of tradition; upon its working in an atmosphere cleared of the mist of superstition; upon the changing of its mode of action from a blind grappling with the phantom entities of disease to a study and manipulation of overnourished or degenerating tissues; upon its having laws which can be understood and rules of practice which can be followed, we ought not to overlook one fact, which perhaps is more evident to outsiders than to ourselves, standing as we do in the dust and turmoil of the arena of our work. I mean that that work, good and useful as it is, has too much the character of what is technically called "salvaging"—is too much in correlation with what is done by the lifeboat-service. Is it there that we ought to stop? I know that we are gradually drawing on beyond that point, and that our investigations are turning in the direction of sources, causes, means of prevention, and outlets for avoidance. But before we can reach the same level of achievement in preventive medicine that we have arrived at in operative surgery—before we can arrest the formation of ovarian cysts instead of excising them—we must

know and understand what we have to deal with. We must master the problems presented to us by the erratic developments and mortal decadences of the tissues and organs which we are now content to clear away. And we ought to have the means of accomplishing this task on a scale commensurate with the importance of the subject of pathology—the professional desire for original research—and the dignity of the College of which we are members.

Most of the university cities on the Continent have made provision for this necessity, with a liberality and such a profusion of accommodation, that the prosecutors of these studies are there at a great advantage. I have visited some of these establishments, and have been able to make comparisons which cause me to regret that so little of the like kind has been done here, and that we have been content to leave a matter which really touches the honour of the profession, and is of national concern, to almost unaided personal zeal and efforts. In England, the jesting phrase that "science does not pay" is so common, that we scarcely feel the reproach. The history of medical science give us many instances of unfairly remunerated men (W. Farr, for example), and of the appropriation of the profits of their applied work; and it would be well if the authorities of our profession took the lead in forming an organisation which should aid the modest labourers of its foundations, protect their interests, and reward their industry. I have long desired to see this done by our College; and the munificent bequest of Erasmus Wilson—a man who estimated the value of money by the good that it could be made to do—now puts it in the power of the College of Surgeons to out rival all other corporations, by setting up, round the nucleus which Hunter left, the most elaborate combination of all the means and appliances for physiological and pathological research, by concentrating the intellectual power which now runs to waste or is diverted to personal interests, and by guiding and directing all that can be done to the advancement of the purely scientific progress of medicine and science.

Last winter, I was away from London for about six weeks. While staying at Würzburg and Munich, I could note, in the most recently erected pathological laboratories, how far our German brethren are in advance of anything which I, at least, have seen in this country. At Rome, again, and at Naples, I was both pleased and surprised to find how much our Italian brethren were doing. And during the meeting of the Medical Congress at Copenhagen, I was shown arrangements for the study and cultivation of micro-organisms, quite as complete as those which many of you may have inspected at the temporary rooms of the Health Exhibition in London, under the able and instructive guidance of Mr. Watson Cheyne. Now, one may fairly ask why provision cannot be made to insure the continuance of this work, and its extension in a better and permanent abode?

Something of the kind I hope to see in Lincoln's Inn Fields. I concur completely in the project to make such additions to our noble building as our Council have long felt to be an absolute necessity, and for which they have already considered plans prepared by the eminent architect, Mr. Waterhouse. These constructions are intended to furnish better and more convenient arrangements for the examinations for our diplomas, to guarantee the uninterrupted use of the library, and to give us further facilities for the promulgation of the higher truths of surgical science. Unquestionably, this will be, in some degree a credit to our College and to British surgery. But I hope I shall not be misunderstood. I have no wish whatever to add to the duties of our College as a teaching institution. We are an examining body, acting for the protection of the public by testing the success of the teaching in the schools and hospitals, and vouching for the competence of our candidates for their calling, after proving to us that they have gone through the course of study we prescribe, and possess the average skill and knowledge necessary to meet all the usual demands of practice. Perhaps, hereafter, we may take the higher position of sitting simply as a court of judgment upon the qualifications of those who present themselves for our diploma, irrespective of the mode and time and place in which their knowledge has been acquired—putting aside all interference with the routine and details of the course of study.

But I aspire to something more than success in securing the requisite skill in practical surgery in those who disperse themselves among the people as practitioners under our warrant and authority. I trust that we may go further; and, no longer trammelled by State interference and sensational clamour, that we may accomplish that which such men as are on our Council would probably have done long ago, had it not been for the restrictions placed upon them by financial considerations. Now that the funds at their command give ample means for the carrying out of any schemes which the most enthusiastic devotee of original research could, in his most sanguine dreams, imagine, my ambition is that we should not merely ~~be~~ the source

of honour to students, and the directors and approvers of schools and teachers, but that we should become the centre of medical research, the mainspring of all the developments of medical science. And now that we can do it, why should we not do it? Why should we not have buildings and accessories, imposing in their grandeur and adequate in their accommodation, laboratories, complete in their fittings, instruments and materials, rooms for conferences, and proper places for the storing of records and results? Why should not our Fellows and Members who are moved with the desire to advance medicine and surgery, by inquiry and experiment, be presented with as great facilities as are to be found in any Continental city or university—such as are so profitably enjoyed by Pasteur, Ranvier, Brown-Séquard, and their colleagues and assistants—advantages hitherto unapproached on this side of the channel, but which our transatlantic brethren are not slow to emulate? I feel that to support the honour of our profession, to fulfil our duties as the representatives of surgical science, justly to carry out the intentions of our late president and benefactor, we ought to be magnificent in architectural and constructive outlay, active in personal work, and liberal in the encouragement and help we proffer to those who come to make use of the opportunities which our College will give, and promote the object for which we are all so deeply concerned and so heavily responsible.

I am encouraged to augur the completion of such a scheme as this, for rendering original investigation in the future infinitely more easy, precise, and valuable, than the surgeons of the past ever hoped for, and to believe in the accomplishment of its designs, when I think that the will of such meetings as this must be obeyed; and feel the conviction that the men of Birmingham will be among the first to avail themselves of it.

I have spoken to you of the past and the present. The future is in your hands; and I appeal to you, as men typical of the thought and action of the profession, actuated by the highest moral sentiments, seeking and mutually guarding your honour as a body; chasing out, with instinctive repugnance, that which, ignominious in principle or practice, has accidentally intruded itself among you, and conscious that—by assuming the highest functions of your calling, in the investigation of national interests, in the promotion of public good by giving counsel to princes and legislators, by such a devotion of your energies, by such a sacrifice of personal consideration as is involved in bettering the condition of the people, in shielding them from disease, and in the prolongation of their healthy lives—you will add lustre and dignity to the private confidence, gratitude, and sympathy, which the profession has already gained by its power over actual suffering and sickness, and by the skill, conscientious vigilance, and humane tenderness with which you make that power manifest.

"I speak as unto wise men, judge ye what I say."

HEALTH OF DERBY.—Mr. Iliffe devotes much space in his annual reports to an examination of the circumstances attending the prevalence of zymotic diseases, and the measures adopted for restricting their diffusion. As regards the compulsory notification of infectious disease, Mr. Iliffe is convinced that each successive year brings with it a greater confidence in its power for good, and also a deeper and fuller conviction of its appreciation by the general public. There were, in all, 187 deaths registered in 1882, and 144 in 1883, from the seven principal zymotic diseases. The experience gained during the prevalence of typhoid fever pointed in the direction of danger from immediate personal infection; and, in view of this, Mr. Iliffe suggests whether more pressure should not be used to secure the removal of sufferers. The absence of a separate hospital for the reception of cases of scarlet fever was largely responsible for the fatality recorded from this cause in 1882—a fact which is prominently brought before the authority for serious consideration. The sanitary work carried on of late years has been of a general rather than of a special kind. A large number of houses have been provided with town water, and in many others the sink-drains have been disconnected from the main sewers. The town is full of cesspools, middens, and ashpits; and, until some action is taken to secure that thorough reconstruction of the whole system of sewerage which is so urgently required, little can be done towards improving the present state of things. The general death-rate was 18.7 for 1882, and 18.3 for 1883.

PRESENTATIONS.—Mr. John Charles Davies, of Rhosllanerchrugog, has been presented with an illuminated address, a gold watch, and a dinner-service of forty-eight pieces, on the occasion of his marriage.—Mr. George Henry Cressey, upon leaving Lowestoft, has been presented with a gold ring, and a stationery- and writing-cabinet, by the brothers and friends of the "Star of the East" Lodge, M.I.O.O.F., to which he had been medical officer for several years.

A LECTURE ON VALVULAR LESIONS OF THE HEART.

Delivered at the City of London Hospital for Diseases of the Chest.

By J. MILNER FOTHERGILL, M.D.,
One of the Physicians to the Hospital.

In the present consideration of the subject, the matter of the diagnostic value of murmurs, and of each individual murmur, will not be discussed, because this is already known to all of you. The characters of each murmur, by which, in all probability, the form of valvular disease is indicated, are too well known to need any reference to them here; but there are some further points to be considered, which are of interest to the practitioner, anent valvular lesions.

In the lower forms of life, the heart is a mere pulsatile muscular sac; but, as the higher forms are reached, direction is given to the blood-current (caused by the contraction of this hollow muscle), and regurgitation is prevented, by the mechanism of valves. When any injury is done to the cardiac valves, enlargement of the muscular sac behind the seat of injury takes place—a change known as "compensatory hypertrophy"—by which the defect in the valve is compensated more or less perfectly. If the valve-lesion be but a small one, the less of this compensating hypertrophy is required; and the less this, again, the more easily and the longer is it maintained. This is a matter as important in each case as the correct determination of the seat of the lesion. Having made up your mind as to the seat of the lesion, the next matter is to calculate the extent of that lesion—whether it be large or small. It may be so small as practically to amount to little, being only felt upon exertion. While a quiet life is maintained, little is known of the injury done to the valve. If the lesion be a large one, its consequences will be proportionate to it. The more extensive the injury, the greater need for compensatory hypertrophy; the more mutilated the valvular apparatus, the more the heart is reduced to its primitive condition of a mere pulsatile sac. Such change was well marked in a case alluded to by Dr. Broadbent in his recent Harveian Lectures on "Prognosis in Heart-Disease." He said: "When the disease is established early in life, even extreme damage to the valves may be so far compensated by dilatation and hypertrophy that the subject may live for many years, as was illustrated by a case in which acute rheumatism, at the age of 14, in 1868, left behind aortic regurgitation, attended with a maximum amount of dilatation and hypertrophy, together with secondary mitral regurgitation and exaggerated signs of every kind, which the patient survived for fourteen years, earning his livelihood as a greengrocer. He died suddenly in May 1882, during convalescence from slight subacute rheumatism, when the aortic valves were found to be practically non-existent, and the heart weighed 4½ ounces." This was a very remarkable case, which, by Dr. Broadbent's kindness, I saw several times with him at St. Mary's Hospital. Despite his severe valvular injury, this patient was a very active fellow. How came this about? Because of the immense compensatory hypertrophy his system built up, and maintained for years. To meet the valvular lesion, the heart had grown to something like five times the weight of the heart of an ordinary man, namely, 4½ ounces. This case will give you a vivid idea of the effects of a large valvular lesion upon the muscular walls of the heart—where the organism is equal to setting up compensation. The case was a very unusually marked instance of a large lesion in the valves compensated by a huge muscular growth; and the immense development of the muscular walls endowed the patient with a corresponding vigour.

I wish to bring under your notice some illustrations of valvular lesions of varying gravity. In the tall man, you see an instance of a comparatively small lesion, mitral insufficiency, easily compensated, enabling him to follow his work as a fine tool-maker, but at times needing a little digitalis to brace up the heart-walls. From time to time, the muscular wall yields a little, and requires the invigorating effect of some agent which increases the energy of the muscular contractions. But the mischief in the valves does not progress; and as long as the compensatory hypertrophy in the right ventricle can be maintained, so long the man is capable of earning a living. When, and under what circumstances, the compensation will fail, is unknown