Lloyd Roberts Lecture

ON

THE PRESENT AND THE FUTURE OF THE
SCIENCE AND ART OF OBSTETRICS
AND GYNAECOLOGY*Delivered in Manchester on November 10th, 1931*

BY

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It is impossible to discuss the present and future of the science and art of obstetrics and gynaecology without paying a passing tribute to those who, in the days gone by, so well and truly laid the foundations of our branch of medicine in this country. Among the giants of the past none looms larger than those of the great provincial schools, and especially, I think I may justly say, of the Manchester school. Here laboured Charles White, pioneer in asepsis and antisepsis long before Lister's day; Charles Clay, the first in Great Britain to perform and demonstrate the possibilities of ovariectomy; Lloyd Roberts himself, who endowed these lectures—a rugged, ardent character, whom we all remember in his tragedian's black cape and hat, but whom few can now recall in the hey-day of his life, when his wide experience and clinical acumen brought to him vast numbers of suffering women from far and near; Sinclair, who founded the *Journal of Obstetrics and Gynaecology of the British Empire*; and, if I mention the clear-minded and trenchant critic, and able pathologist, Fothergill, who was taken from us all too soon, I must be allowed to speak of Donald by name, although he is still with us and of us, linking the past to the present. No one has done so much as Donald to make the Manchester school a coherent, living force, and to inspire the younger men to persevere along the difficult path to scientific achievement, which has already been trodden by so many of those here to-day. In other provincial centres there have lived and worked such men as Lawson Tait of Birmingham, and Alexander of Liverpool.

Let me now attempt to define the position from which I wish to start my discourse. In the days that have passed—almost to the end of the last century—the clinician claimed a very large proportion of all the scientific advances made in medicine and surgery. It is only of recent years that others, working as “professional” scientists—if I may so term them—have invaded the province of gynaecology and obstetrics. I do not use the word “invade” in any derogatory sense, for we warmly welcome their aid, which has so long been withheld, but rather because the whole scientific basis of our subject—embryological, morphological, psychological, and physiological, including the biochemical and hormonal, and pathological—has been established by practising obstetricians and gynaecologists here and in other countries. This should be especially emphasized, because it will be a great heritage to those who come after, and it will, we may hope, inspire the younger gynaecologists of to-day and to-morrow, especially if they can be brought to realize that the patience and courage, knowledge, and scientific attitude of mind engendered by research are of infinite value in clinical practice.

Unfortunately, there is already, at the present time, a tendency to treat the science as something distinct from the art of medicine, and this point of view may become increasingly evident as the years go by unless we do something to alter it. Two reasons may be given for this tendency. First, many hold that the scientific aspects of medicine, such as the biochemical, and even the patho-

logical, are now too advanced for the clinician properly to understand them. Secondly, the younger clinicians, possibly owing to changing economic conditions since the war, appear anxious at once to secure an income which would have seemed to some of us in our youth riches beyond the sweetest dreams of incipient practice. It is, however, only too true that clinicians who take their problems to the laboratory and try to solve them there are now regarded by the professional scientist as amateurs. In the old days all distinguished clinicians were received into the Royal Society. To-day, unless they be attached to certain medical schools—we might almost say a certain school in London—clinicians have practically no chance of election. As a consequence, the Royal Society is losing its former prestige and influence in medicine. The gynaecologist of the present realizes that there will be little or no scientific recognition for him, and believing, more or less correctly, that there is no financial recompense in such work, he wonders whether it is worth while. Unhappily it is true that in the rough and tumble and competition of modern life pure altruism, idealism, and scientific enthusiasm find little encouragement.

Nevertheless, our great and important subject has been placed on its present scientific foundation by the endeavours of scientifically minded clinicians during the last fifty years. The art of it has been established by the earlier practitioners and by those of recent times who have wisely drawn on that research, which has added so much to our knowledge of physiological and pathological phenomena, to perfect their technique and practice for the benefit of their patients. This represents the general state of affairs in regard to our art and science in the immediate past, and indicates the psychological reaction of ourselves and others towards the furtherance of the subject. This is the atmosphere in which many of us have worked, and into which the younger practitioners have been, and are being, launched. What has been the result, and what is the prospect now? It is from concepts of the present that our ideas of progress in the future are born. It is therefore impossible completely to detach the present from the future in this discussion.

PRESENT SCIENTIFIC POSITION AND OUTLOOK

If it be an economic truth that demand governs supply, we may rightly consider that the present time should be a golden era for our subject. The normality of Woman herself is of increasing importance to the civilized world, for it is the normal woman alone who should perpetuate the race and maintain the dominance of home life, without which men are handicapped both mentally, physically, and as citizens. If this be accepted, the scope for gynaecology and obstetrics of the highest type is wider than it has ever been. We should aim not only at the best ways of dealing with the abnormalities of the genital system, but also throw ourselves whole-heartedly into the task of encouraging women to maintain a normal psychological outlook in regard to the special attributes and functions of their sex. Never can British obstetricians and gynaecologists be accused of being narrow-minded. In this country obstetrics and gynaecology are inseparably interwoven. Woman—her mental and physical functions—is our subject.¹ But to scoff at surgical craftsmanship as though this could not be combined with a wider outlook, or the wider scientific outlook associated with surgical skill, is to belittle our subject and the practitioners of it. For this reason I regret Dr. J. S. Fairbairn's reflections in his recent Bradshaw Lecture.⁵

Until the present generation our knowledge of genital physiology was scanty; gynaecologists and obstetricians were therefore unable to apply biological principles to their art. Now, however, our understanding of the normal functions is such that the disorders thereof are being

treated scientifically rather than empirically. If we look closely into this development we recognize at once that it has been largely due to the realization that the genital organs and functions are not limited to the pelvis, but are, in fact, in intimate correlation with all the regulators of metabolism, as Noël Paton has called the ductless glands, and with their influences. It was to this fascinating question that I was first attracted over twenty years ago. From it such important matters as the final differentiation of sex, the mechanism of menstruation, the physiology of conception, and the phenomena of the menopause have passed into everyday knowledge and teaching. This widening of our sphere has brought us into the closest touch with general medicine and surgery.

Many interesting examples of advances along these lines of investigation might be quoted. For instance, the gynaecologist is sometimes the first to diagnose pituitary dysfunction as the result of his investigation of a case of amenorrhoea; whereas, when many of us were students, such patients received myrrh, aloes, and iron! Again, Aschheim and Zondek have fruitfully exploited our knowledge of the correlations between the pituitary, ovary, and placenta, and have shown that in the urine of pregnant women a biochemical substance, which can be identified by simple biological tests, is excreted. This culmination of scientific endeavour has given to the world one of the most beautiful diagnostic reactions ever placed in the hands of the profession. I believe, too, that it will be the precursor of many tests based on metabolic interactions, both in normal and abnormal states. It is, in fact, not a late comer, but a forerunner. Yet even this discovery has left unsettled various problems in connexion with it. The most important of these is the question: Why cannot prolactin be identified in the urine of pregnant lower animals? Here is what appears to be a not very difficult investigation, and one that might lead to interesting developments.* Furthermore, of the general metabolic studies of ourselves and others we have not been slow to take advantage. The importance of the calcium metabolism in respect of the genital functions in normal and in abnormal states is now universally recognized. So, too, knowledge of the influences of the vitamins, due chiefly to the researches of the biochemist Gowland Hopkins, has led to a great improvement in the management of pregnant women. Indeed, it appears likely that if obstetricians of the rising generation will seize the chances awaiting them along these lines, their efforts may lead to the disappearance of all the grosser malformations of the pelvis and of certain metabolic disturbances with which we are confronted to-day. But, above all, it seems to me that the tremendously successful outcome of long trails of scientific endeavour, with their dramatic and immediate clinical applications, must fire the imagination and ambition to excel in many of our younger colleagues. This, it is true, is a preventive era, but prevention necessitates action as well as "masterly inactivity" measures. We cannot make the sun shine, but we can remove obstructions to its rays, and even utilize artificial sunlight. Here we have an illustration of the beautiful simplifications that follow in the wake of abstruse science, so well exemplified in the recognition of the fact that the essential vitamins are constituents of our common food-stuffs. A great enlightenment this, for it confirms our belief in Nature, and in the naturalness of the phenomena of life, growth, and health, with which our science is connected in a most intimate way.

I have just tried to indicate in the manner of my telling that the clinical application of "discoveries"—shall I call them?—often takes a very simple form; for we find that many errors of metabolism can be avoided or rectified

*In this connexion reference may be made to the statements contained in a paper published since this lecture was set up in type: Laquer, F., *British Medical Journal*, 1931, ii, 1168.

by the use of natural materials and processes. We can prevent and treat rickets, for instance, by ensuring that the individual leads a sunlit, lactivorous, vitaminous life. So much, then, for our present kind of knowledge. I have made no attempt to do more than illustrate the way in which it has been acquired and should be utilized, and to indicate how the vast amount of scientific work done of recent years is bringing our knowledge, obtained in different fields of inquiry, along convergent lines to clinical foci. This means that he whose mental accommodation is swift and sure will so align the rays of light that they fall upon and illumine what was hitherto obscure. But for this careful preparation is necessary. It is essential that we organize our methods and our means, both individual and environmental. So-called "genius," as is well known, lies not so much in great natural aptitude as in the capacity for taking infinite pains to ensure that good results shall follow the operations of the mind. The vision to foresee the equipment and facilities required, and the knowledge of how best to order our own thoughts and the thoughts of those who follow after us, constitute the fundamental attributes behind human endeavour and progress.

TEACHING AND LEARNING

Principles of Teaching

As we look around the country we notice that medical teaching schools attached to universities have come into being in every large city. This means that everywhere teachers have appeared whose guidance is sought by many students who in older times would never have taken up the most difficult, and, owing to the variable factors concerned, the most intimate and personal of all sciences. The whole gamut of human attributes is drawn upon for the perfection of the medical scientist, and every practitioner is, or should be, a medical scientist, whether he appreciates his position or not. His sensibilities, his memory, and his higher faculties of analysis and judgement, imagination and creation, are constantly called into action. This is recognized by all teachers who take the trouble to study their responsibilities; not but that in the days long past the great teachers, who were then so few in number, must by some intuitive method have taught as though they had given much thought to the manner of so doing. We are, however, very reticent about these matters; we feel when we discuss, if ever we do, abstractions of this kind that we are treading on holy ground, and that the subject is one for personal contemplation rather than for public consideration. Yet I am convinced from what I have seen that the teaching of obstetrics and gynaecology in these islands is, generally speaking, more idealistically (in the philosophical sense) practised than is that of the kindred subjects of medicine and surgery. The reason for this lies undoubtedly in that happy blending of science, practice, and service to the frailties of womanhood, which forms the environment in which we obstetricians and gynaecologists have our being. By these perhaps crudely expressed thoughts I want to convey the view that in teaching our students and nurses—our colleagues to be—we should strive to make them thought-conscious rather than self-conscious and self-sufficient. With the vast growth in our knowledge of the scientific aspects of our branch of medicine, with the different nature of primary and secondary teaching as contrasted with the classical and philosophical education to which practically all of us were apprenticed in the nineteenth century, and with the somewhat different material, psychologically considered, that is committed to our charge, we must all the more inculcate the necessity for right ways of thinking and for discipline of the mind.

I have recently discussed "brains,"⁴ their constitution and education. Though I must not here delve into psychological problems, I may, perhaps, insist that a

retentive memory is not all that is required in a student, even though it enables him to shine in examinations. More and more from our teaching experiences we recognize that if we can fix the attention and interests of our pupils, and demonstrate to them that *learning is understanding*, not only will they not forget—and we have all noticed that students never forget the unusual and curious—but also by proper appreciation of principles lucidly explained they will acquire the habit of thinking and finding out for themselves. Yet among the army of teachers, even teachers of obstetrics and gynaecology, there cannot but be some who confine themselves to the teaching of facts alone, and so produce an index type of mind. They evoke no gleam of mental satisfaction in the backward, such as comes to those on whom the truth of some hitherto difficult problem has dawned. Some understanding of modern psychology is of the greatest value to every teacher, as it is to every practitioner.

Preliminary Scientific Training

At this point, perhaps, a few words may be said about the teaching of the preliminary sciences in relation to medicine. This has been ably discussed in recent years by Professor J. A. Milroy (1929),⁶ Professor R. J. S. McDowall (1931),⁷ and others. It is a difficult subject; first, because the time factor in the medical curriculum has to be considered; secondly, because there is the question of how, and how much of, the fundamental sciences should be taught. In regard to the first difficulty, what may be called essential knowledge has increased with great speed, not only in the fundamental sciences, but also in their application to clinical practice. Further, purely clinical and pathological knowledge has progressed so far in every direction that the lengthening of the time of the medical curriculum alone has been unable to meet the situation. How, then, can the ordinary student be expected, even step by step throughout his course, to become really proficient in all? He cannot possibly be expected to do so. What is the alternative, for it is generally admitted that a useful knowledge, both of the preliminary sciences and also of medicine, is necessary? At the same time it must not be forgotten that we are obliged to cater for students of average ability, and not for the few brilliant men.

It does not seem to help us much to dwell on the growing independence of the sciences in relation to what McDowall terms "vocational sciences"—in our case medicine—unless our object be to show that this is at the root of the trouble that has arisen. It is of more importance for us to find a way out of our difficulties; and it would seem that this can only be by way of simplification. So it is borne in upon us that, from the practical as well as from the psychological standpoint, the teaching of detail should be curtailed as far as possible, and the teaching of principles expanded. Too detailed knowledge is positively harmful to those with retentive memories, for such students become walking indices, relying on the efforts of other brains, instead of using their own. It is far better to teach students the underlying principles and to show the relation of these to the more important details, in order that they may fill in the rest for themselves. For this reason all the preliminary sciences—and I differ from those who would exclude botany—should be taught in such a way that the application of them to principles of medicine would be made so clear and interesting that they could not fail to become fixed in the student's mind. If I may be permitted to touch on my own experience, I may say that I have found my own interest in human and comparative morphology, physiology, and pathology of much assistance in teaching students, for they are always greatly interested in the relationship between evolutionary and other biological principles and their human studies; and that is why in my *Principles of Gynaecology* compara-

tive anatomy and physiology receive consideration. If the teaching of the preliminary sciences were concentrated in this way, and unnecessary detail avoided, our students would come to their final studies knowing how to think, understand, and apply, and we should not have our curriculum overcrowded by the unending enumeration of facts that must be memorized. Naturally, if most anatomists and physiologists regard their subjects as the most important, they aim at making all students acquire a comprehensive and much too detailed knowledge of them. As a result, in some medical schools physicians and surgeons have been appointed to teach applied physiology and anatomy in order to alleviate the mental indigestion caused. This attempt at correlation can hardly be considered a satisfactory solution. We obstetricians and gynaecologists, however, since we have been compelled ourselves to work at the preliminary sciences which have a bearing on our vocational science, have been better fitted than our colleagues in other branches of medicine to teach our students the essential principles of morphology and physiology in relation to our subject; indeed, had we not been, they would never have learned them elsewhere. This is one of the chief reasons why we should continue to do scientific work in connexion with obstetrics and gynaecology.

Arrangements for Teaching Obstetrics and Gynaecology

The application of the methods of teaching, to which attention has been called, should receive serious consideration. Yet it is important that the main features should not be obscured by disputations concerning local arrangements which, after all, are chiefly related to individual preferences, to different estimates of the aptitude of students generally, and to the facilities obtaining in various university centres. Every teacher, for example, should be allowed to teach his students by the methods from which *he* obtains the best results. Some men can create interest by lecturing, others by class instruction, and so on. Consequently it should be ordained in the future that a university syllabus shows only the times allotted to theoretical and practical teaching, and not to the methods. To make a poor lecturer lecture is to invite imperfect and ineffectual teaching. This seems common sense, just as does the fact that if there are only 200 maternity cases available for each rota of twenty students only ten cases can be personally delivered by each; but it can also be insisted that each student shall be present at and closely observe fifty deliveries. In other words, while adhering to a general desideratum, we should allow of elasticity in the manner by which it is reached. It is nevertheless wonderful how much uniformity does exist at the present time, when we remember that it is not many years—not more than about ten—since the teaching requirements in obstetrics and gynaecology were ridiculously inadequate, and were even then stultified by non-fulfilment without compensation; for example, compliance with the regulation that each student should personally deliver twenty maternity cases was in many places impossible. At last a movement is in progress to secure that the *time* of the student allotted to obstetrics and gynaecology shall be at least as long as is possible under the present period of medical study. It will be our duty to see, not only that this is well applied, but also that we have the proper facilities for the purpose. Until there is uniformity in the facilities in each teaching centre in proportion to the average number of students, it will be very hard to obtain standardization in regard to the manner in which the general requirements are carried out. At the same time, we cannot forget that it is the duty of every teaching school to turn out highly efficient practitioners, whatever may be the ultimate conditions of practice.

Material Facilities.—There is little doubt that, both for our own efficiency in regard to scientific and clinical work and for educating the student, a suitable environment, with all the necessary facilities, is most desirable. In this country we have never, in a general way, organized our teaching school and research arrangements in the thorough manner some of our European and American colleagues have done. I know of only two university departments worthy of the name in Great Britain, and one of them is in this city. These go far beyond anything that has been attempted by the physicians and surgeons. There are, I am glad to say, one or two more in embryo, the growth of which we shall all watch with interest. On the other hand, so far as arrangements and facilities for purely clinical teaching are concerned, most of us by personal endeavour have secured satisfactory clinical departments and operating theatres. This has not always been easy when the improvements necessary have been advocated in general hospitals under the often jealous eyes of our surgical colleagues, for we have not yet completely established to their satisfaction our right to be regarded as their equals.

The recognition of the advantages, which have been set out elsewhere,² of having large obstetrical and gynaecological departments in general hospitals need not be reiterated here; but apart from the wider outlook and the increased facilities for teaching thereby afforded, this arrangement tends more than anything else to place gynaecology and obstetrics on the same footing as that of medicine and surgery, for it brings the gynaecologist and obstetrician away from his isolated position in a special hospital to close work and co-operation with his other colleagues. It is to be hoped, therefore, that the future will see the gradual disappearance of special hospitals.

There are one or two aspects of clinical teaching to which some reference is necessary. It has rightly been held that, whereas the general practitioner is not expected to perform the major operations of general surgery (although he often does so), he may be called upon to deal with a major complication of labour. This is the present state of affairs; but is it one of which we really approve? Is it not rather one which we condone? Does the training advocated now by the most importunate of us—that is, four months of clinical obstetrics (two of which shall be spent in residence) and two months of clinical gynaecology—does this make every student fit to conduct a major obstetrical operation? Few of us would agree that it does so, although it may be enough for the occasional brilliant student. It could, on the other hand, well be argued that it gave a confidence which might lead to dire results. The inwardness of my remarks will be clear to all teachers who know how little operative work such students can obtain under present conditions. It can be estimated, then, that while the teaching arrangements soon to come into force almost everywhere in this country will give students as good a training as they obtain in medicine and surgery, it certainly will not fit them to become either obstetrical specialists—which is what the public seems to demand—and still less gynaecological experts. It is said that obstetrical complications are emergencies. They used to be; but with proper ante-natal care this is only occasionally the case to-day. So, without going into particulars, it may be stated that in the immediate future we must establish an adequate maternity service staffed by properly trained men; and if the organization is to be efficient, it must be allied to, and dependent on, the teaching units. It must not be a "national service" within the public health service.³ The time may come when all practitioners undertaking maternity work in such a service will be required to possess a diploma or a higher qualification in

obstetrics and gynaecology, after an adequate period of post-graduate study. This should be one of our immediate aims.

Post-graduate facilities are rare and hard to secure in this country, though in Manchester, as we know, there is an excellent scheme for post-graduate obstetrical work. Such courses should be more general, more continuous, more in demand, and the practical work conducted by the post-graduate student himself should be more extensive and varied. The development of post-graduate teaching and the facilities for practical experience under university control is an urgent problem to-day, and it is being seriously undertaken in a few centres only. Yet we cannot expect a very great demand for post-graduate courses in the present circumstances of practice in this country. The heavy financial burden thrown on the practitioner by absence from his practice while undertaking post-graduate study, and the exacting nature of this course in obstetrics, will require careful consideration. The possibility of some form of compensation, such as a diploma, is the least that should be offered.

EXAMINATIONS

The whole system of examining—the system of mental tests—that we apply to our students is causing anxious thought to many. Just as our methods of teaching—established long ago by and for the few who were educated in a more formal and classical age—are not always congenial to the modern teacher, so it is that our methods of examination, which have endured for a century, may not be altogether suitable to modern requirements. It is true that all scientific men must have a theoretical as well as a practical training. This was recognized by the Brahmins several centuries B.C.

"He who is trained only in theory and is not experienced in practice knows not what he should do when actually dealing with a patient; on the other hand, a surgeon who is educated in practice alone, and knows nothing of science, will not earn the respect of better men."

It is desirable that all doctors should show that they have had a good general education. Facility of expression is an important indication of "brains." So we test the theoretical knowledge and the powers of analysis and expression in good English by means of papers. This is a right method, and should be retained. The results, however, are often lamentable in regard to arrangement, grammar, punctuation, methods of expression, and legibility of handwriting, putting aside the question of knowledge displayed. I fear that we are all too lenient in regard to this part of the examination, and perhaps do not realize all we should look for in such a mental test. If the assessment were rigid, I imagine that only about 10 per cent. of candidates, at the very most, would be found to write papers that could be regarded as satisfactory. But, in some measure, this is our own fault. How many students in the whole of their medical careers receive instruction in the proper methods of demonstrating their knowledge on paper and at viva voce examinations? Recognizing this, for a number of years I have given to my students one or more lectures on how to learn and how to utilize knowledge; and I have constantly discussed these matters during class instruction. I hope the future will see a development along these lines, and that students will be taught this important aspect of learning early in the curriculum.

The clinical examination, if properly conducted, is most valuable, but it would probably be better if more time were spent on it. The difficulty lies in the short duration of the whole examination. Any large number of students can, of course, be engaged at one and the same time in writing answers to the questions set in the papers; but if two or three hours were to be devoted to the

clinical examination of each student in the two or three days allotted to the whole examination an army of examiners would be required. The same applies to the viva voce examination in pathology, which should be concerned only with the relation of pathological disturbances and lesions to the signs, symptoms, and progress of disease. In Sweden there is no formal final examination. At the end of his seven or eight years' medical course the student is taken by the professor for a couple of hours, or, possibly, for one-half of a day, and is questioned orally only. He is called upon to examine and to discuss the diagnosis and treatment of cases, the pathological findings, and so on. If the professor, who already "knows his man," is satisfied, the candidate is passed in that subject. In most university centres in Sweden, with its small total population of about 6,000,000 persons, the number of students is not very large, and with no definite time or date for the examination of each student, it is not difficult for the professor, who has no external examiner to consider, to manage matters satisfactorily. It has been suggested in this country that, in addition to the ordinary examination, the record of each student in regard to his clinical work in the wards should be fully described by his teacher and submitted to the examiners at the final examination in evidence of the candidate's practical capacity and fitness, or the reverse. I believe that this arrangement has been adopted in some places. Most teachers and examiners would welcome an extension of the practice; or, if properly controlled, accept such evidence in the place of the less complete method of clinical examination now employed.

It appears, then, that the student should receive definite instruction early in his career as to how to use his brains and to express himself. This would enhance the value of the teaching he subsequently received, it would enable him to do his examinations better, and to become a more efficient practitioner. The examination should consist, first, of a clinical test conducted by two of his teachers between the completion of the candidate's clinical course and the examination proper. If the student fail in this clinical part, he should be relieved from completing the examination, for it is a *sine qua non* to-day in most universities that a student shall pass his clinical examination regardless of his paper. This would save the examiners' time, and they could devote more to the examination of the candidates whose clinical work had been satisfactory. The second part of the examination for these would comprise written answers to the papers and a viva voce test in pathology.

With regard to the examination of post-graduates for the higher degrees and certificates, the case is somewhat different; yet most universities and colleges in this country conduct these examinations on exactly the same lines as those for students wishing to qualify. This does not seem to be right. If a man enters for the final Fellowship examination in surgery at any Royal College of Surgeons he is desirous of obtaining one of the highest surgical certificates, and in many cases intends to follow a surgical career. There should be much more demand, therefore, for his personal surgical record, not only in respect of the resident and other posts he may have held, but also of the actual surgical work he has done. For this, provision is made in the regulations governing the membership of the British College of Obstetricians and Gynaecologists. Before a candidate can enter for the set examination, which consists only of a viva voce examination of one hour's duration on any aspect of obstetrics and gynaecology, he must submit a record of the posts held by him—a certain minimum being required—together with a record of a certain number of obstetrical cases and gynaecological operations conducted by himself. Moreover, an obstetrical and also a gynaecological thesis on

some of his cases must be submitted. It is only when these records are accepted that the candidate is examined in the way described.

CLINICAL PRACTICE

In this sphere we have already attained a very high level of accomplishment. It is not so very long since gynaecologists were regarded as accoucheurs trying to do surgery, and obstetricians as midwives. Everyone knows that in certain London hospitals they were, until the present generation, forbidden to attempt major surgery. We also know how the withering blight has long remained, and, indeed, has not yet been entirely removed from the gynaecological practice that was so unfairly affected. Lawson Tait with his courage and dominance, Alexander with his regard for physiological principles, and Donald with his tact, technical skill, and ready acceptance and application of scientific advances, took prominent parts in the emancipation of gynaecological surgery as we know it to-day, and placed it beyond all criticism of technical perfection. The present generation of gynaecologists, old and young, has completed the triumph. Among them are men known the world over as craftsmen in surgery no less competent than the most expert general surgeons of the time. Yet we must beware lest we become self-satisfied, for there is still too wide a gap between the best and the worst. There is also ample room for improvement among the most proficient, and this is related chiefly to perfection of technique and the application of correct procedure, all of which require thought, and then further thinking.

The greatest advances in gynaecological surgery have lain not so much in the technical improvement of radical operations, which unhappily, are still sometimes necessary, as in the development of conservative and reparative procedures. With the latter I have recently dealt,³ and to them I need not again refer; but I should be failing in my duty were I not to mention the progress that has been made in the treatment of obstetrical injuries, which so often lead to prolapsus uteri. In this campaign Manchester has led the way. It is not for me to say how much credit is due to Donald, how much to Fothergill, or to others here, for the Manchester school has spoken with one voice, and the rest of the gynaecological world has hearkened. That obstetrical technique and the prevention and alleviation by therapeutic measures of the disorders associated with childbirth have not advanced at the same rate is to some extent intelligible, for gynaecological surgery has simply followed the trend of all surgical procedures, while obstetrical practice has not had similar opportunities. So it is that many have tried, quite wrongly, to separate the two parts of our subject, instead of bringing their mental and manual efficiency to the standard required by the "Compleat Gynaecologist"—the man competent to deal with all aspects of the science and art of our comprehensive subject.

STATUS OF OBSTETRICS AND GYNAECOLOGY

Most of us recognize that, ancient as is our lineage, we have developed so rapidly during the last half-century that we have yet had neither time nor opportunity fully to consolidate our present position: and, as we have seen, there has been a danger of our losing part of our territory. Those whose vested interests cause them to view us as upstarts probably think we take ourselves and our subjects too seriously, and that we are pressing for more than is our just portion. As we have seen, gynaecology and obstetrics represents, in a way which no other branch of medicine can do, the practical side of biology so far as the human subject is concerned. Scientifically speaking, medicine, surgery, and the specialties, both in their preventive and curative aspects, are subdivisions of that

branch of gynaecology and obstetrics which concerns child welfare. It should not be necessary, therefore, to establish our own status, for we freely grant the acquired status of the daughter branches of our subject; but it seems that it is necessary, for in the future we must have our house in order, our privileges recognized, and our facilities for progress ample and secure. There now exists a British College of Obstetricians and Gynaecologists. In this institution lies, I believe, the future of British gynaecology and obstetrics. The rapid progress of our College in two years towards the fullest recognition and usefulness may be traced to the fact that all the details of its formation, projects, and possibilities, and the means and performances necessary to bring these to fruition, were fully realized in advance. The College has progressed according to plan and not to chance.

The younger men who will take the places of those of us who have been concerned in the formation and policy of the College, and in establishing its traditions and ceremonies, should fit themselves for the task that awaits them. Each should accustom himself to envisage, not only his own or immediate local development, but the development of gynaecology and obstetrics generally. It should become the firm resolve of all to make our College the guardian in this country of our branch of medicine. It should constitute our central organization, both for

teaching and applying mental tests to individuals, and for assisting and encouraging research, remedying social anomalies within our province, and improving the practice of our art. The declaration which all members of the College are required to sign well expresses this ideal.

It is always easier to speak of the future, which is on the lap of the gods, than to analyse the present, which is before everyone as an actual experience. Nevertheless, provided we are capable of framing sound judgements from our experiences, and have enough imagination and constructive ability, we should be able to plan, to model, and to build an edifice, imposing, useful, and capable of expansion in the future.

That for which we are striving—the recognition of all we are and mean in the advance of medical science—will be consummated if we continue to follow our ideals.

[Professor Blair-Bell's lecture concluded with a section entitled "Conditions of practice in the future."]

REFERENCES

- ¹ Blair-Bell, W.: *The Sex Complex*, London, 1916; second edition, 1920.
- ² Idem: *Lancet*, 1931, i, 1171.
- ³ Idem: *British Medical Journal*, 1931, i, 653.
- ⁴ Idem: *Liverpool Med.-Chir. Journ.*, 1932, xxix, 1.
- ⁵ Fairbairn, J. S.: *Lancet*, 1931, ii, 999.
- ⁶ Milroy, J. A.: *British Medical Journal*, 1929, ii, 309.
- ⁷ McDowall, R. J. S.: *Ibid.*, 1931, i, 409.

THE ACCIDENTS OF THE MALE CLIMACTERIC*

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The title of my paper requires some explanation. No such condition as a male climacteric is recognized by orthodox medicine. In man, as opposed to woman, there is no well-defined termination to the reproductive function, and examples could be given of men who have retained their capacity to procreate in advanced old age. Recently I appeared as an expert witness in the law courts in a suit which turned on whether a man of 83 could be the father of a child. We won our case, not only because the collateral evidence was strong, but because I could quote many instances of spermatogenesis in the testes of men of 80 and even of 90. Metchnikoff actually cites the case of a man of 103 in whose testes spermatozoa were found. And if examples are required of the retention of sexual passion we have only to think of Goethe, who at the age of 74 fell so desperately in love with a girl of 17 that when his suit went badly he was prostrated with grief and no longer desired to live. Indeed, it was this episode in his life, and a previous one in which he had been more successful, that suggested to him the theme of *Faust*.

But despite these examples of individual men who have retained their sexual capacity in old age I still think that it is possible to talk of the male climacteric. The idea is not a new one, for long ago Arab and Greek mystics wrote of the "grand climacteric," which they placed at the age of 63. In medical literature the notion of a critical age for man has also found a place, although such eminent authorities as Kraft-Ebbing and Vinay have denied that there is any psychological evidence to support it. But it was to the term "male menopause" that Kraft-Ebbing was chiefly opposed, and, as Gregorio Maranon says in his excellent work on the climacteric, such an expression as menopause implies an initial error. By the word menopause is meant a cessation of the menstrual flow, and to

use it in reference to the male is manifestly wrong. The term "climacteric" is less linked with the idea of menses, and therefore greatly to be preferred, but in order to avoid any possible confusion Maranon has selected the paraphrase "critical age."

Before entering into a description of this period of man's life it is necessary to point out certain essential differences that distinguish it from the corresponding age in a woman. First, it should be remembered that the female menopause is primarily a genital episode, having secondary reactions on other systems and organs. In the case of man the climacteric has a different significance. Man's critical age is, as Maranon has expressed it, a stage of organic evolution in whose centre the extinction of active genital life stands out prominently, although this is not the axis on which it turns. As adolescence marks his passage from childhood to maturity so does the climacteric represent his descent from maturity to old age. The biological foundation on which it rests is genital decadence and secondary neuro-endocrine reactions.

We need not be surprised that the climacteric is less noticeable and less defined an event in the life of man than in that of woman, or that it is less closely linked with the extinction of the genital function. Although reproduction is an act in which both male and female play a part, that played by the female is immeasurably greater than the part allotted to the male. Nature has expended all her ingenuity in fitting woman for her role as major partner in the work of carrying on the race. Whilst in man other activities have been considered, in woman she has allowed herself no latitude in her planning and has sacrificed everything to the end in view. Whether it be pleasing or not to her political aspirations it is a fact that everything in woman is sacrificed to the reproductive function. But she can, at any rate, console herself with this: arrived at a certain age, she is once and for all relieved of the chief disabilities from which she has previously suffered. The menstrual cycle ceases, the organs of reproduction involute, and she can enjoy her rest. For man, on whom the task of reproduction places no burden, this definite and sudden change is totally unnecessary. Procreation is for him an activity that makes small demands on his resources; he can carry the burden of

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