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."]

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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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the reproductive function even when his physical powers are on the wane. So it happens that involution of the reproductive system occurs at a later date in the male than in the female, and in certain exceptional cases may be postponed to ripe old age. In the majority of men, however, we find signs of involution beginning in the organs of generation during the later part of the fifth decade and the beginning of the sixth—the age of the Greek “grand climacteric.” The cause of the involution is imperfectly understood, but as we know that the ovaries play an important part in the involution of the female genitalia, so we can be certain that the testes exert a controlling influence on the involution of the reproductive system in man.

But testicular insufficiency is introduced with less abruptness than is the ovarian insufficiency that marks the female menopause. In the case of woman, the ovaries pass from full activity to complete cessation of function in the course of a few months. In man, the process of genital extinction may be spread over several years. As a result, the increase in thyroid activity which characterizes the female menopause is less marked in the case of the male. The disturbance of his endocrine balance is gradual rather than sudden, and he is exempt from the violent flushings of heat, the palpitations, and the tachycardia that so commonly reveal thyroid dysfunction in the female. When hyperthyroidism occurs in the man it usually reveals itself only in a gradual loss of weight and in a mild degree of psychic irritability.

The menopause is a physiological process, and in the perfectly healthy female is accompanied by only two symptoms, the cessation of the menstrual flow and the occurrence of certain vasomotor crises commonly known as “flushings.” Unfortunately there are comparatively few individuals who can be regarded as perfectly healthy, and more often than not the menopause is associated with various symptoms of ill-health. Not only is it a period of endocrine instability, but we find that just as constitutional weaknesses tend to manifest themselves at the time of adolescence, so do they show a disposition to return at the period of involution. Moreover, the work of involution of the reproductive system is not always accomplished without the occurrence of some accident. For example, we find that in the female such diseases of the breast as interstitial mastitis, mammary cysts, and neoplasms are particularly likely to develop at this time. Later I will describe some of the accidents that are likely to occur during the process of involution of the male reproductive system. First, however, it will be convenient to consider certain changes of a constitutional character that occur at the time of his climacteric.

CHANGES IN EXTERNAL APPEARANCE

Just as the woman who has passed the menopause tends to put on weight and assume the rounded curves of the matron, so does the man at the time of his climacteric show a disposition to become fat. It is not so much that he becomes generally obese, but that he accumulates fat both within and on the walls of the abdomen. Indeed, abdominal adiposity may be seen in a man who otherwise remains thin. When this accumulation of fat is excessive various minor disturbances of health may be produced. Circulatory embarrassment is the commonest. The patient, because he feels short of breath after exertion, drops all exercise, and hastens still more rapidly in the direction of old age. Next to the circulation, the digestion is most prone to suffer. Flatulent dyspepsia is a common sequel, and with the increase in intra-abdominal pressure due to his meteorism there is produced a further embarrassment of the circulation. The patient, caught up in this vicious circle of his abdomen, resigns himself to his armchair and his newspaper.

Another result of this tendency to abdominal adiposity is a liability to develop herniae. Increased abdominal pressure and weakening of the abdominal walls provide just the conditions which are necessary for this, and it is to the male climacteric that the truss makers owe half of their business. Even when no bulging can be detected in the region of the inguinal canals, symptoms may occur which point with equal clearness to a stretching of muscles. Not infrequently, a patient whose abdominal walls have suffered as a result of over-pressure and under-exercise will complain of a pain that is only relieved by lying down. His trouble can be dealt with by the use of a light truss or a well-padded belt. But in a few cases the change in external appearance may be towards thinness rather than fat. Certain women who have struggled up to the time of the menopause with a disposition to put on weight find that at last they can eat what they like without any anxiety about their figure. So, too, there are men who show that they have reached the climacteric by a loss of flesh. The reason is the same in both sexes—overaction of the thyroid.

While an alteration in weight is a common feature of the climacteric, it can by no means be regarded as essential. A man may conserve his figure and maintain his weight, and yet, when his friends look at him, they note some subtle difference which they find difficult to put into words. “He looks older,” they say; and by this they imply that he has moved, not gradually but suddenly, in the direction of old age. In this his friends are right, for it is an undoubted fact that our progress through life is not so much a steady, continuous movement, as a motion which can best be described as a series of jerks. The baby suddenly becomes a child, the child an adolescent, the adolescent a man, and, in the downward course, the mature man passes quickly into the “climacteric,” and finally, if he survives it, he is jerked into senility. As physical science has found that changes in the orbit of the electrons occur in jumps, and biology that variations appear suddenly as spurts, we doctors should realize that our journey through life is by a series of abrupt steps rather than by an even progress from the cradle to the armchair. Perhaps when we understand better the laws under which we live, we shall discover some basic rhythm underlying these changes; but in the meantime we must be content merely to *record*, as did that keenest of observers, Shakespeare, when he gave us his classical description of the seven stages of man. But the upset of the endocrine balance and the metabolic changes marking the climacteric do not reveal themselves only in an alteration of external appearance. They are sometimes more clearly discernible in a change in the patient's character. These psychological features of the climacteric will now be discussed.

CHANGES IN PSYCHOLOGY

In man's social relations, and in his business or professional activities, two opposing sets of forces may be said to be at work—the active or excitant, and the passive or inhibitory. In youth the former predominates, for youth is characterized by its submission to impulse, its disregard for consequences, its lack of self-criticism, and its fondness for the revolutionary. These are the forces that lead to great discoveries in art and science, and to reformations in general. With advancing age, these active forces play a progressively smaller part in the life of the individual, while inhibitions prevail increasingly. The work of a man who has reached the climacteric is stripped of the audacious and aggressive character of youth, and he moves in the direction of conservatism. This is the normal course of individual evolution; but as exceptions to this general law we find many examples of artists, statesmen, and scientists who have accomplished their best

and most revolutionary work after the age of 50. What is of great interest from the standpoint of this paper is the fact that, almost without exception, these unusual men who have retained their power to innovate have also retained their sexual activity.

But just as we find few women who pass through the climacteric without giving evidence of some emotional disturbance, so there are few men in whose psychology the endocrine readjustments of the period are not reflected. As a rule this shows itself in nothing more marked than a certain degree of emotional instability, but in certain cases greater deviations from the normal may appear. Not infrequently these disturbances have a sexual character. The critical age is often associated with a sudden flare-up in the dying embers of desire. Novelists have made good copy out of the dangerous age in woman. In man the corresponding phenomenon has, because in general it is less marked, received little attention. As a rule it is productive of nothing more sensational than a conflict between desire and the capacity to achieve—a conflict that may in some cases be the starting-point of a neurosis. But sometimes this increase of sexual urge has graver consequences, especially when it takes a somewhat abnormal form. The most frequent of these abnormal forms is what has been termed the "gerocomic tendency"—that is, the desire of an elderly man for very young girls. At times this urge reaches an intensity that is definitely pathological, and brings the victim into conflict with the law. It must surely be apparent to the most unimaginative of magistrates that the eminent and elderly gentleman arrested in Hyde Park for indecent behaviour should be treated as an invalid rather than as a criminal. A man who has led a highly respectable life for sixty years does not suddenly run counter to all his habits and indulge in indecency unless he is the victim of a compulsion that is stronger than his will. His exhibitionism is as certainly the psychological consequence of an upset of the endocrine balance as is the sudden infatuation of a woman in the mid-forties for a youth of half her age. It is possible that he may always have harboured certain latent and unsatisfied fantasies, but it is the neuro-endocrine instability of the climacteric in its excitable phase that has resulted in his surrender to what had previously been inhibited. Fortunately, these manifestations of a disordered psychology are comparatively rare, and, in the majority of instances the change in mentality associated with the climacteric is reflected in nothing more serious than, say, a disposition on the part of a previously cautious business man to gamble, or in an alteration in the character of pictures that an artist paints or novels that a novelist writes. Interesting as these speculations are, it is with the local manifestations of involution rather than with the constitutional and psychological that I, as a genito-urinary surgeon, am chiefly concerned, and with these local changes I shall now deal.

CHANGES IN THE REPRODUCTIVE SYSTEM

Of greatest importance, on account of the difficulties to which they may give rise, are the changes that affect the prostate. My attention was first drawn to the idea of a male climacteric some ten years ago, when I was engaged in some researches on the causes and nature of senile enlargement of the prostate. I was struck by the resemblance existing between microscopical sections of an enlarged prostate and a female breast in the process of involution. In both cases were to be seen distension of the acini and proliferation of epithelium with the formation of intra-acinous projections. Afterwards I found that Paul of Liverpool had been equally impressed by this similarity and had called attention to it in some of his writings. Further investigation revealed that in cases of

prostatic enlargement there are to be found signs of regression and degeneration, not only in the prostate, but also in the whole of the genital tract, more especially in the testes and the seminal vesicles. The changes in the prostate are only part of a general involutionary process affecting the whole of the reproductive system. But even if we are right in regarding enlargement as an accident occurring during the course of prostatic involution, we are still faced with the difficulty of explaining this accident. Why does one prostate undergo shrinkage after active sexual life has ceased, whilst another not only fails to shrink but actually enlarges?

If we examine the prostate at various periods throughout life we find that it increases in size up to the age of 30 and then, diminishing slightly, reaches its maximum between 50 and 60. After this, in a healthy man who has passed satisfactorily through the "menopause," it falls steadily, so that in old age it has shrunk to perhaps half its previous size. The following figure shows graphically the changes in the prostate from childhood to old age:

The curve has been constructed from Lowsley's paper dealing with the *average* weight of the prostate at different times of life so that it includes the normal with the pathological. We are ignorant of the factors that determine whether or not a gland undergoes successful involution. Ciechanowsky believed that there was no actual increase of glandular tissue in cases of enlargement, but that the swelling resulted from obstruction in the prostatic ducts causing distension of the acini. It is certainly true that the enlarged prostate is full of distended glands, for if we incise it a milky opalescent fluid exudes and a microscopical section of the gland reveals the presence of many distended acini. Whether this alone will explain enlargement I am doubtful, and I have, at any rate, never been able to establish any relationship between the size of the prostate and the degree of distension of the glands. But overloading of the glands with secretion certainly plays a part in enlargement, and it is probably on this account that prostatic massage frequently relieves the symptoms in early cases of obstruction.

Ciechanowsky considered that the occlusion of the prostatic tubules was the result of surrounding inflammation followed by fibrosis and subsequent contraction. If the inflammation is in the neighbourhood of the ducts, the result will be distension of the acini and general enlargement of the gland. On the other hand, if it is situated in the neighbourhood of the acini, general shrinkage takes place with the production of a small fibrous prostate. But from my own personal observations, although I have found a clear connexion between previous attacks of inflammation and the production of a fibrous prostate, I have never been able to establish any relationship between an enlarged gland and a history of old infections. For this reason I am unable to accept Ciechanowsky's inflammatory theory as a satisfactory explanation of the etiology of enlargement. Even less

evidence can be found to support other theories that have been advanced, such as that enlargement is the result of sexual excesses or sexual starvation, or that it is in the nature of a compensatory hypertrophy. The same is true of the observation that prostatic enlargement is a disease which has a definite geographical, or to be more exact, ethnographical distribution. If we could explain why it is so exceedingly rare amongst Mongolians we should be in possession of a valuable key to its etiology.

ACCIDENTS AFFECTING THE TESTICLE

Next to the prostate, the part of the genital tract that is most likely to suffer during the course of involution is the testicle. It is during this period of life that hydroceles are particularly liable to develop. Such hydroceles have up to the present been termed "idiopathic," since no satisfactory explanation of their etiology can be given. In my opinion a better term would be "degenerative," as they are almost always secondary to degeneration in the testicle itself. It has, of course, long been recognized that the testicle associated with a hydrocele in elderly men is often hard, and a microscopical examination of the gland invariably reveals fibrosis associated with degenerative changes in the tubules and ducts. These changes are patchy in distribution; that is to say, one finds areas that are comparatively normal and adjoining areas where the epithelial cells are degenerating or have even disappeared. When we consider the testicle rather than its coverings we find that the epididymis is more likely to suffer during this period of involution. Clinically, this is shown by the development of multiple retention cysts, due to stenosis of the epididymal canal and vasa efferentia from the contraction of surrounding fibrous tissue. Mr. Ogier Ward states that in a study of cases of multiple epididymal cysts he found the average age at which they occurred was 55, a fact which, in my opinion, points to their being degenerative phenomena. They may indeed be considered analogous to the cysts so commonly found in the ovary at the time of the menopause. As a rule, they cause only a trifling discomfort to the patient, but since they result in an increase in size of the testicle they are not infrequently the cause of unnecessary anxiety. The simplest method of treatment, if treatment be required, is tapping, but if this only produces temporary relief, excision may be carried out.

Although the seminal vesicles show marked signs of degeneration in cases of prostatic enlargement, any symptoms for which they may be responsible are so overshadowed by the symptoms resulting from prostatic obstruction that they are negligible. Sometimes, as a result of obstruction in the ejaculatory ducts, the vesicles become dilated or pouched, and subsequently these dilated vesicles are often the site of a chronic inflammation. Occasionally a stone is formed from the deposition of lime salts on a nucleus of epithelial cells and spermatozoa. These vesicular concretions may give rise to such symptoms as painful ejaculation, pain on defaecation, and haemospermia. Their chief importance, however, lies in the fact that they may be mistaken for malignant nodules and lead to an error in diagnosis.

TREATMENT OF DISTURBANCES AT THE CLIMACTERIC

The treatment of the male climacteric consists in dealing separately with the various disturbances to which it gives rise. In the case of a woman it is otherwise, for not only is her menopause definitely genital in character, but we are fortunate in possessing various extracts of a proven efficiency. It is doubtful whether, even if we possessed them, similar benefits would result from the use of active testicular extracts in man. I have observed no benefit after attempts to increase the supply of testicular hormone by tying the vasa; nor have such blind efforts in endocrine

therapy as the giving of prostatic extract to cases of enlargement borne any fruits. In fact, nothing I have seen leads me to believe either that the prostate has any internal secretion of its own or that its enlargement is associated directly with changes in any of the endocrine hierarchy other than the testis. Until, therefore, we understand more fully the factors responsible for prostatic enlargement, and until we are able to postpone in man the arrival of his critical age, we shall be compelled to deal with the various accidents that accompany it by the crude, but nevertheless successful, methods of the surgeon.

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OTITIC HYDROCEPHALUS: A REPORT OF THREE CASES

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In each of the following cases the clinical evidence suggested, up to a point, the presence of a cerebral abscess secondary to otitis media. The question at issue, when the patients were first seen by the writer, was whether an exploratory operation should be undertaken. In all cases the application of certain criteria led to the diagnosis of otitic hydrocephalus; symptoms of increased intracranial pressure were relieved by lumbar puncture, and the patient made a complete recovery.

Of the pathological basis of otitic hydrocephalus we have no precise knowledge. It is a condition in which otitis media—with or without such complications as a preliminary meningitis, extradural abscess, or lateral sinus thrombosis—is associated with an excess of normal cerebro-spinal fluid under excessive pressure. The clinical symptoms are those of increased intracranial pressure—headache, vomiting, and papilloedema—and in this respect are similar to those caused by a cerebral abscess. There are, however, certain points of clinical distinction between the symptoms of otitic hydrocephalus and cerebral abscess upon which the differential diagnosis may provisionally be made at the bedside. When this stage has been reached the diagnosis may be confirmed by appropriate investigation of the cerebro-spinal fluid. The main points of clinical importance are as follows:

1. The most striking feature of otitic hydrocephalus is swelling of the optic discs. This, with haemorrhage and exudate, frequently amounts to several dioptres. In cerebral or cerebellar abscess, on the other hand, the optic disks commonly show no more than a slight venous engorgement. Such a degree of swelling as is met with in otitic hydrocephalus is rarely seen in a case of abscess, and is then usually accompanied by extreme drowsiness and malaise.

2. In striking contrast to the appearance of the fundi in otitic hydrocephalus is the general condition of the patient. Between the attacks of headache and vomiting he is likely to be alert, lively, and of good appetite. The patient with an abscess, on the other hand, generally looks and feels ill, is dull, constipated, and without appetite. This point of distinction may be blurred or lost when some other condition, such as a lateral sinus thrombosis, is associated with otitic hydrocephalus.