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THE SEQUELÆ OF GONORRHŒA IN THE MALE

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It is the sequel of an attack or more often of several attacks of gonorrhœa with which the genito-urinary surgeon comes into contact, and in a journal devoted to the subject of venereal disease, it may not be out of place for a genito-urinary surgeon to review some of the disabilities that may follow a chronic urethritis.

In a previous article in this Journal I discussed a complication and a sequel of gonorrhoea which seldom receives the attention that it deserves, namely, neurosis. Having dealt with this fully before, it is unnecessary to give psychological trauma more than a passing notice in the present article. It is sufficient to say that pain and more particularly pain in the region of the prostate and the testicle is remarkably common after a chronic posterior infection. If after a careful examination of the patient we can find no organic lesion of these structures we label his pain functional. In this we are perhaps going beyond our rights, for the absence of induration, swelling, or even of tenderness, does not exclude the possibility of there existing some condition which cannot be discovered by palpation, such as congestion, a minor degree of fibrosis, or a low grade of infection. It is probable that in most of these so-called functional cases some pathological lesion exists of a minor nature, a lesion which in a person of normal psychological state would be discounted. Occurring, however, in an individual worn out by the ups and downs of a chronic gonorrhœa, the lesion forms a peg on which to hang a neurosis. Such cases should be treated by a judicious combination of measures directed to the relief of pain, and to the improvement of the psychological state. Personally I find a short course of diathermy followed, if possible, by a complete change of environment such as is provided by a holiday, an excellent programme of treatment.

Amongst the sequelæ that are more definitely surgical
must be mentioned sterility, stricture, and fibrous prostate. We will first consider the question of sterility. It has long been known that gonorrhoea is one of the commonest causes of sterility in both the female and the male, its action in both sexes being due to cicatrisation in the one case of the tubes and in the other of the epididymal canal. Although the cause of the infertility is apparent, namely, obstruction to the descent of the ovum from the ovary and to the ascent of the spermatozoon from the testis, the remedy is difficult to apply. We are dealing with such fine structures that plastic operations designed to remove the obstruction fail. Martin's operation of vaso-epididymostomy has proved such a disappointing proceeding that most surgeons have abandoned it as useless. Even although the vas is successfully reimplanted into the epididymis so as to short circuit the obstruction, the process of cicatrisation that follows any surgical operation stultifies our effort to provide an egress to the spermatozoa. Lately, however, F. R. Hagner, of the George Washington University, has claimed that by an alteration in technique he has obtained satisfactory results from vaso-epididymostomy. The chief features of his operation are the substitution of fine silver wire for catgut as a suture material, and the making certain that spermatozoa are present at the proposed site of implantation by microscopic examination of the fluid that exudes from the epididymis when this structure is incised. Fine wire is more difficult material with which to work than catgut, but its presence apparently causes less reaction in the surrounding tissues. So far I have not seen any indication that other operators have obtained the same satisfactory results as Hagner, but the best hope of treating this unfortunate cause of azoospermia following a bilateral epididymitis, undoubtedly lies in the direction of a short-circuiting operation.

More rarely the infertility that follows gonorrhoea is due to a chronic infection of the accessory sex glands, and more particularly of the prostate and vesicles. Here the trouble more often takes the form of oligo-zoospermia and necrozoospermia, rather than a complete absence of spermatozoa in the semen. The outlook in such cases is more favourable, since the chronic infection is generally amenable to a treatment in which massage takes foremost place.
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The second sequel to gonorrhœa which the genito-urinary surgeon is called upon to treat is stricture. Although I have no statistics with which to reinforce the statement that the frequency of stricture has diminished during the last ten years, I am convinced that this is the case. This is particularly true of the occurrence of stricture in what may be called the non-hospital class. Whereas the urologist of pre-war times had a faithful clientele of stricture cases on whom he could rely to pay his rent, the urologist of to-day has but a sprinkling of such cases. It also appears to be true of hospital patients. Some years ago Sir John Thomson-Walker published a graph showing the relative frequency at St. Peter's Hospital of urinary obstruction due to stricture and to prostatic enlargement during a period of twenty years. This graph showed two intersecting lines, the curve for stricture falling as steeply as the curve for prostatic obstruction rises. Some of the rise in prostatic obstruction is probably due to better methods of diagnosis, but the fall in the incidence of stricture can only mean that this sequel of gonorrhœa is becoming less common amongst hospital as well as amongst private patients. The reason for this is obvious. A gonococcal infection is no longer regarded as a trifling disability unworthy of the attention of the medical profession. The gonorrhœal patient is as a rule handled skilfully and remains under medical care until the infection has cleared up. Not only this, but infiltrations that in due course may lead to a fibrous stricture are discovered by means of the urethroscope and dilatation carried out before any deposit of adult fibrous tissue has had time to take place. In parenthesis it may be mentioned that a temporary rise in the incidence of stricture formation appears to have followed the drastic handling of the mucosa of the urethra that was in vogue for a short period towards the close of the European War. It will be remembered that in the anxiety to find a method of eradicating promptly the gonococcus, certain methods of treatment were evolved which whilst they may have destroyed the gonococcus also damaged the urethra. I refer to such drastic measures as electrolysis and wholesale cauterisation of infected follicles. Fortunately the profession as a whole has recognised that the chief asset in treatment is the health of the patient's tissues, and the urethra is
treated with far greater respect than it was during this brief interval.

It is not my intention to discuss the treatment of stricture, for stricture is a trouble for which treatment has become almost standardised. Perhaps, however, it is worth pointing out that the value of the operation of internal urethrotomy does not appear to be fully recognised. I have the honour of belonging to three hospitals, one of which is a large general hospital that possesses no special department for genito-urinary surgery. In this hospital the operation of internal urethrotomy is practically unknown, whereas in the specialised hospital, or in the one that possesses a special department, internal urethrotomy is frequently performed. To my way of thinking it is an invaluable method of treatment for certain cases, for example, in the difficult case in which the successful passage of a bougie is problematical at each visit of the patient. It is also invaluable where severe reactions follow each attempt at dilatation, or where little progress is made on account of the unyielding nature of the stricture. I cannot find any reason for this neglect of internal urethrotomy at general hospitals, and such inquiries as I have made have led me to believe that some general surgeons have an exaggerated fear of the complication of haemorrhage. Provided the largest knife of the urethrotome is left in its case, I am of the opinion that the danger of haemorrhage is negligible; at any rate, it has never occurred in my own practice. The advantage of converting by a simple surgical procedure a difficult stricture into one that only requires the passage at increasing intervals of a full-sized bougie is obvious, and I can heartily recommend internal urethrotomy to those who have not made sufficient use of it.

The third surgical condition that may be a sequel to chronic gonorrhoea is what has been termed the fibrous prostate. It has long been known that all the symptoms and signs of prostatic obstruction may be produced by a prostate which on rectal examination appears to be normal in size, and it was for this condition that the French school of urology invented the term "prostatism sans prostate." But even although the condition is now well-recognised, it is often missed by practitioners. More particularly is this likely to be the case when the patient suffers also from stricture. Since these two lesions are
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both the sequel of chronic infection, it is natural that they should frequently be found associated in the same patient. At first sight the disturbances of micturition are put down to the more obvious lesion, namely, the stricture, and it is only when dilatation of this fails to bring about the anticipated improvement that the existence of another lesion is suspected. Although prostatic obstruction from a fibrous prostate usually occurs at a later age than obstruction due to stricture, it is generally earlier in its appearance than the difficulties due to prostatic enlargement. Probably the most usual age for its appearance is in the early fifties, although I have seen many cases in which no symptoms were noted until the patient had reached sixty or more. So common is this combination of stricture and fibrous prostate that when a patient of a mature age consults me for a stricture that up till that time has caused no trouble, I give a reserved prognosis of the results that will be obtained from its dilatation, until I am sure that the condition is not associated with an obstruction at the level of the bladder neck. At the present moment I have under my care a patient of seventy who was brought to me for an internal urethrotomy, which after its performance gave little or no relief to his symptoms. Cystoscopy showed the existence of a fibrous bar stretched across the posterior margin of the vesical outlet.

In former years the treatment of the fibrous obstructing prostate was removal by the suprapubic route. Since there exists no line of cleavage, this entailed either a wholesale or a piecemeal excision by means of scissors and scalpel, the patient being placed in the exaggerated Trendelenberg position and the field of operation brought into view by means of a good exposure and an illuminated bladder retractor. Nowadays, through the improvement in perurethral methods, equally satisfactory results can be obtained without opening the patient's bladder. By means of a McCarthy resectotome segments of the thickened posterior lip of the internal meatus can be scooped out, cuts being made in the position of six, five and seven o'clock. Since the fibrous prostate is less vascular than the enlarged prostate of old age the field of view is less likely to be obscured by haemorrhage, and since the total volume of the gland is not increased, less tissue need be removed in order to
obtain a satisfactory result. At the end of the operation, the resectoscope, which previously had been difficult to pass on account of its impinging on the posterior lip of the vesical outlet, will be found to slip easily into the bladder. A catheter is inserted and tied in for a variable period, depending for its duration on whether the bladder is infected or not. Fibrous prostates are more likely to be associated with septic urine than enlarged ones, and as a consequence catheter drainage with frequent washing out of the bladder by means of a Marks’ apparatus forms an important item in the post-operative treatment. Convalescence lasts on an average two weeks. At the end of that time the patient is allowed to leave the home, but should report periodically for the passage of a full-sized metal bougie. This dilatation is carried out in order to ensure against any subsequent contraction of fibrous tissue. Another precaution that it is advisable to take is to ligature the vasa at the time of operation. Not only is the presence of an indwelling catheter likely to provoke an epididymitis, but the fact that the urine is generally infected makes the patient specially susceptible to this complication. By obstructing the path along which the infection spreads, the patient can be safeguarded against what is a very unpleasant sequel to an otherwise satisfactory operation. Vaso-ligature has indeed become a routine procedure with most surgeons in any operation on the prostate, for failure to carry it out may entail something more than discomfort to the patient. I can recall one case in which the occurrence of a suppurative epididymitis as a post-operative sequel caused the death of a debilitated man who had been successfully steered through the earlier perils of his convalescence.

Mention has been made in this article of the diminished frequency of stricture as the result of an improvement in the general level of treatment of gonorrhoea. It is possible that subsequent years will show a fall in the incidence of obstruction from the fibrous prostate. If this be so, it will be difficult for any genito-urinary surgeon to write an article on the sequelæ of chronic gonorrhoea.