

FOR AND AGAINST TREATMENT BEFORE DIAGNOSIS*†

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We are discussing the arguments for and against treatment before diagnosis in the control and management of the venereal diseases. If the issues involved are to be quite clear in our minds and the discussion is to be fruitful, it is essential first to define our terms and to know what exactly we are talking about. The terms "prophylaxis" and "preventive treatment" are often used indiscriminately both for measures taken to prevent the entry of a pathogenic organism into the body of the patient and also for those designed to suppress or diminish the effects of the activity of that organism after entry has been gained. The first is not the subject of our discussion to-night. The principle contained in the old proverb, "prevention is better than cure", is an accepted one in relation to all diseases. The actual nature of the measures to be taken is often a matter of dispute, especially in relation to the venereal diseases in which complex moral issues are involved; but none of these matters concerns us just now.

Is there or is there not justification for using what should properly be called "abortive treatment" for venereal infections? Such treatment is undertaken on the assumption that an infecting organism has entered the patient's body because certain risks have been taken, although these may or may not have involved exposure to the organism.

The idea of abortive treatment is by no means new. The introduction of each new remedy for the venereal diseases has been followed by a wave of enthusiasm for this form of treatment. Dr. Willcox has reviewed the evidence on which the present campaign is based. I shall have something to say about that evidence presently, but if history is to repeat itself, as it is so apt to do, within a year or two these methods which are now advocated so eagerly will have passed into oblivion, like so many before them. The results reported by Eagle and his colleagues (1948, 1949) and by Campbell and his colleagues (1949) from the use of penicillin by mouth in the abortive treatment of gonorrhoea are no better than those said to have been obtained during

the last war, from the use of sulphonamides by mouth for the same purpose. The reports of Kline and Ryan (1942) and Joses (1942) among others claimed excellent results from this method. If abortive treatment for gonorrhoea is a good idea, the sulphonamides have obvious advantages over penicillin because they do not mask syphilitic infection. We have never heard the reasons why this treatment fell out of favour: was it enthusiastic for new drugs? or did the sulphonamides lose their efficacy for abortive treatment as they did for treatment of established gonococcal infection? or was due note taken of the report of Arthur and Dermon (1943), who took the matter a little further and cultured the prostatic secretions of some of the patients who had received abortive treatment which seemed successful, and in some cases grew the gonococcus? I suppose we shall never know the answers to these questions but they would have helped us in our present deliberations.

In spite of past disillusionment, Dr. Willcox and those like him look to the future of abortive treatment with eager enthusiasm, if not always with clarity of thought. To illustrate what I mean, let me quote from a recent publication (Willcox, 1953a), in which he has, if he will allow me to say so, coined a mighty phrase: "Perhaps, one day, a permanent antibiotic umbrella against the accidents of venery may be ensured by just a handful of injections each year". The meaning is clear, even though the metaphor is open to criticism.

Because this form of treatment has its advocates, it is important for us to examine without prejudice the arguments for and against. For my part in this, I propose to ask certain questions and to give what I conceive to be the correct replies:

(1) *Is there a principle involved?*

Dr. Willcox mentioned the aphorism "diagnosis before treatment", which is one of the sayings which have been impressed upon us from our earliest years in the study of Medicine, and which we still commend to our students as a golden rule. He says it is out of date because abortive treatment was used for the suppression of malarial infection in wartime and is still so used. I know little about malaria, but it is an odd argument

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that because a group of people deviated from a rule once then the rule must be regarded as permanently discredited. Surely this method of treating malaria was introduced as a military expedient in time of war, and although it has been shown to have value in some circumstances it could not be claimed as a solution to the problem of malaria, which in any case is an entirely different problem from the one we are discussing. Judging by a letter from Sir Neil Hamilton Fairley (1953), and a leading article in a recent number of the *British Medical Journal* (1953), this method of treatment is not without its problems, and if malaria were sexually communicable we should now be faced with an epidemic.

I must say that the principle "diagnosis before treatment" still looks good to me. Purely on the grounds of common sense it is better to know where one is going before one goes. All of us are aware that many members of our profession use potent remedies without taking steps to establish a diagnosis. We have all seen patients who have suffered through this practice, and have experienced great difficulty in the management of their cases. It seems to me that the advocates of abortive treatment are proposing the same thing with less justification. Personally I shall continue to impress upon my students that this aphorism embodies a fundamental rule for the proper practice of Medicine.

At the same time I think it would be wrong to pretend that rules of this kind have the unyielding authority of the moral law. I can conceive exceptional circumstances in which many of us would be driven into departure from the rule: for example, for the protection of a wife whose husband, having taken a grave risk, refused temporarily to discontinue marital intercourse on that account, especially if the wife were pregnant. No doubt there are other circumstances, perhaps among backward peoples where medical services are deficient, as Dr. Willcox contends. But it must be emphasized that departures from the rule are undesirable expedients which should be carefully and critically examined before they are adopted. None of them should be advocated as proper and scientific procedures.

(2) *Is such treatment likely to be effective in curing the patient?*

Dr. Willcox (1953b) has written, and I understand him to have reaffirmed this view this evening:

Venereal diseases, both gonorrhoea and syphilis, can be prevented by the taking of a tablet . . . immediately after intercourse.

How can he know that this is true? He is impressed by the results reported by Alexander and Schoch (1949) and by Plotke, Eisenberg, Baker, and Laughlin (1949) from the use of penicillin in the abortive treatment of syphilis, and by Eagle, Gude, Beckmann, Mast, Saper, and Shindledecker (1948 and 1949) and also by Campbell, Dougherty, and Curtis (1949) from the use of penicillin by mouth in the abortive treatment of gonorrhoea. The evidence from these sources indicates only that the giving of antibiotics as abortive treatment diminishes the number of patients exposed to infection who develop

the *early* signs of infection. Willcox (1953c) has written:

There is no conclusive evidence to date that penicillin given orally in the incubation period will mask syphilis and prevent it from appearing, if it is to appear, within the normal period of observation.

And, oddly, he concludes from that (Willcox, 1953d), that the disease is either cured in the incubation period or shows itself fairly quickly either clinically or by serum test. Now this is a strange argument. It is agreed that there is no conclusive evidence that syphilis is masked in this way, but it is equally true that there is no conclusive evidence to the contrary. The fact is that no one has observed these patients long enough and carefully enough to provide the answer to this question. Of the patients given abortive treatment for syphilis by Alexander and others (1949a, b), less than half were observed for 12 months and less than one-tenth for 18 months. Incidentally, there is nothing in the reports to suggest that the patients who received abortive treatment for gonorrhoea from Eagle and others (1948, 49) and from Campbell and others (1949) were tested for subclinical infection. I quote again from Willcox (1953e):

It therefore seems justifiable (he is commenting on the evidence to which I have referred) to treat the known contacts of infectious syphilitics before the development of signs, provided it is explained to the patients that they will have to have the full 2 - 3 year follow-up with serum and spinal tests just as if the syphilis had really been known to be present.

I ask Dr. Willcox how many such patients treated in this way have to his certain knowledge had this full period of observation and tests. He is the one who is proposing a departure from the standards of the past; surely the onus of proof is on him. I submit that unless he can produce satisfactory evidence that a large number of patients has been observed and tested for this period, he cannot conclude that the disease is either cured in the incubation period or fairly quickly shows itself either clinically or by serum test.

Certain facts which have yet to be explained suggest the possibility that patients who receive penicillin for other reasons than venereal infections, as so many patients do, may be receiving abortive treatment which proves unsuccessful. We are all aware that the incidence of gonorrhoea is increasing in spite of the apparent efficacy of treatment. There is, as yet, no evidence that the gonococcus is becoming resistant to penicillin either in the test tube or in the living organism. May this not be one of the effects of unwitting abortive treatment? A few months ago Dr. Gurney Clark told us here that in the New York area the incidence of latent syphilis had recently increased among young men, in spite of the striking fall in the incidence of early infectious syphilis. He suggested that this might be due to the fact that many people were receiving penicillin for miscellaneous reasons and that in consequence the early signs of syphilis were being suppressed without producing cure.

(3) *Is such treatment likely to be effective in diminishing the incidence of venereal infections?*

We come now to the argument that abortive treatment

is in the interests of the public health, or of world health. In considering this aspect of the subject I think we should have it quite clear in our minds that our main responsibility is to our individual patients. We must respect the opinions and the achievements of those who by the nature of their responsibilities must take the broad view in these matters; but we must be careful not to be dazzled by the fascination of mass statistics nor by the modern conception of the all-powerful state in which the rights of the individual are negligible. We must resist the idea that our patients are sheep and that if we treat them with the antibiotic equivalent of sheep-dip all will be well.

What is the evidence that abortive treatment of venereal infection will bring about a reduction in the incidence of these diseases? With regard to syphilis, in Great Britain we seem to have done quite well with the methods of orthodoxy. Various investigations have been undertaken as to the value of penicillin administered to all and sundry in reducing the incidence of venereal diseases in various countries. There is said to be a Guatemala project announced by Mahoney (1947), but we still have no details of results. A campaign was commenced in Mexico in 1949 by which all who were potential sufferers from venereal diseases were injected with 300,000 units of penicillin G in oil with aluminium monostearate during an experimental period of 6 months. Gooden (1950) reported that during the first 5 months of the campaign there was a decline in incidence of venereal diseases among the personnel of a local naval garrison from an average of 91 to an average of 45 per month. But at the same time other steps of a more general nature were taken which may also have influenced the incidence of infection. Can this be described as satisfactory evidence on so important a point? Cutler and others (1952) treated a whole community in India each with 300,000 units of PAM. It was stated that this measure was considered to have reduced the reservoir of infection. Again, the evidence is hardly convincing; the opinion was based on indirect evidence, for the local population would not cooperate in reassessment of their cases 6 months after treatment. In the mass-treatment campaign in Bosnia described by Grin (1953), the abortive treatment of family contacts was found to reduce the incidence of re-infections. This, however, was an expedient designed to overcome local difficulties in proper supervision and was, in any case, applied to non-venereal infections transmitted within the family circle, with none of the anxieties and psychological problems peculiar to venereal diseases.

(4) *Leaving aside the question of cure, how is this treatment likely to affect the individual patient?*

I hope this will be the question which will be in the forefront of our minds. Patients who seek our advice because they have taken risks of infection are anxious people—often abnormally anxious. Dr. Willcox implies that it is bad for them to be under observation for 3 months and to have repeated serological tests (Willcox, 1953f). But I have already quoted him as saying that if the patient is known to have been exposed to a syphilitic

contact, the period of observation and tests must be 2 to 3 years. I presume that he will agree that in most cases he will not know whether the patient has been exposed to syphilis or not; and surely if he gives abortive treatment he is assuming exposure to all the diseases for which his antibiotic is effective, and his standards of observation and testing must not be less stringent. So that 3 months of anxiety become 2 to 3 years of anxiety with uncertainty at the end of it. Now this is the way to make anxiety neurotics and to fill the psychiatric clinics. Any competent doctor can handle a patient who is acutely anxious through risk of infection. The fact of consulting someone who is sympathetic is in itself a big relief. After a thorough examination and proper reassurance the patient goes away in quite a different frame of mind, and if the doctor has inspired the proper degree of confidence, 3 months of uncertainty can be faced without lasting ill-effects. At that point absolute reassurance can be given and the matter is soon forgotten. Consider on the other hand, the patient who has had abortive treatment. It is proposed to take 2 to 3 years to settle his problems, with all that that entails in the way of frequent visits, tests, prolonged anxiety, and restrictions as regards marriage or married life. Quite apart from the stress and inconvenience, it is a matter of common knowledge that patients find it much easier to adjust to the fact of infection than to face life-long uncertainty whether infection has occurred or not. So much for the argument about anxiety. Another argument upon which the advocates of abortive treatment rely, is that few patients complete the prescribed 3 months of observation and that a significant proportion of patients with early syphilis are infected without being aware of the fact. Therefore, the argument runs, make sure in all cases by giving abortive treatment. This is not a very convincing argument. Either the patient is of the worrying type, or he is not; if he is, and the doctor deals with him properly, he will certainly remain under observation for 3 months; if not he will probably fail to seek advice in the first instance.

Conclusion

I have said enough to indicate that I am against treatment before diagnosis. I believe there is no case for abortive treatment of the venereal diseases, and that all our efforts should be directed to discourage a method which makes a considerable appeal to many of our colleagues who are not in a position to weigh the evidence and discern the disadvantages. The effect upon the anxious patient may well be disastrous, and the patient who is not anxious will seldom bother to present for treatment. It has yet to be shown that abortive treatment will in fact abort, and not merely temporarily suppress infection. There is no real evidence that the public health will benefit from such procedure. There is another danger which I have not mentioned. The sheep may not only be dipped but may also be

shorn. Think of the effect upon the incomes of some of our contemporaries of propaganda advocating the administration of antibiotics after each extramarital intercourse! If each patient is then to be observed and tested for 2 to 3 years then is the future safe for the venereologist, but the bankruptcy court and madhouse loom for the anxious patient.

I submit that abortive treatment for the venereal diseases is unsound, perhaps ineffective, and often harmful. I believe that we should strive to discourage a method which is a departure from fundamental principles and has been advocated without mature consideration and without proper evidence as to its efficacy.

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DISCUSSION

THE PRESIDENT said that statements for and against had been put very clearly, and it was for each individual now to make up his own mind as to which method was the best. He was a little worried about all this indiscriminate treatment. Medicine ceased to be medicine if one went about the world sticking a needle into everyone who could be caught. He had seen a patient recently who was syphilophobic; she had been given a course of antisyphilitic treatment which made her considerably worse and now she did not know whether she had been infected and cured or what had happened to her. What the ultimate result would be he did not know.

The problem of prophylactics worried him considerably at times. He worked in a clinic at Covent Garden and had a large number of prophylactic patients, people who came to London, indulged, and then came for prophylactic treatment. They seemed to think they could dominate and dictate to the physician; in fact, some who had been to various centres near the American camps would come and ask for a shot of penicillin. This was frequently refused; his own reaction was that they should take the prophylaxis given by the clinic or go elsewhere; he was not having them come in and tell him what treatment they would have. He found that the average persistent prophylactic individual was very irresponsible and one who certainly would not come for any degree of follow-up. With many it was very difficult and sometimes impossible to get them to have a blood test, in spite of frequent casual exposures.

The other point he would like to find out was: what was the legal position if a physician treated a patient for a disease that he might not in fact have? Was one really doing the best for the patient? Personally, he did not think so because some were being put into a state of considerable doubt that might easily result in phobia.

DR. C. S. NICOL said that he was definitely against abortive treatment. It seemed to him that this should not be considered as a global problem, because, after all, most of the members were practising medicine in Great Britain. Dr. Willcox, in discussing the method of mass treatment, had mentioned many disorders which were not venereal diseases. Dr. Willcox had particularly mentioned the survey on endemic syphilis in Yugoslavia where abortive treatment was sometimes given to a whole village. Could one imagine what would happen in an English village if one turned up with a van and equipment, knocked at the front-doors, and told people one had come to give them all injections? Some would certainly ask why, and the reply would be, "To make sure you do not get syphilis"! He would rather not think of what Dr. Willcox meant by a "sweep of the population" in Poland; such methods could not be used in Great Britain.

In relation to the problem of treating the consorts of patients with early syphilis, he would agree that one had to make exceptions, particularly for women in the late stages of pregnancy. It did not follow that because one made an exception, the principle had to be accepted.

He was particularly interested in the question of treating women who were the contacts of men with gonorrhoea. Dr. Willcox had said he would take two sets of genital tests and serological tests before giving abortive treatment. He agreed that there was a high incidence of gonorrhoea in these female contacts; it was his experience at the Whitechapel Clinic of the London Hospital that the figure would be 80 per cent. After the necessary 3 months' surveillance of the 20 per cent. who did not give positive smears or cultures one assumed that they were not infected. He did not think it was any