

VENEREAL DISEASES

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UNDER the name 'venereal diseases' are included three distinct diseases, namely, syphilis, gonorrhœa and soft sore or chancroid. They are associated together because in the great majority of cases they are acquired through sexual intercourse with an infected person. Gonorrhœa and chancroid differ from syphilis in that the infection is a localized one. In the case of gonorrhœa the common site of infection is the genito-urinary tract in either the male or the female and the symptoms which arise depend mainly on the extent of the genito-urinary tract involved. There may be complications in other parts of the body, but for the most part gonorrhœa may be said to be a localized disease. Chancroid is even more rigidly a localized disease and in no case becomes a generalized constitutional infection. On the other hand, syphilis is a much more important disease than either, because invariably it becomes a constitutional infection and can be conveyed to the child by either or both of the parents.

Before proceeding to describe these three diseases it is advisable to point out that the doctor primarily considers the individual suffering from venereal disease as a patient and not as a person who has transgressed the moral law. The primary interview with the patient is as private as possible, and, in securing the confidence and co-operation of the patient, reliance is placed on sympathetic and thorough examination and treatment, and not lecturing or preaching or frightening the patient with stories of the grave after-effects of the disease. It has become very evident that in attacking the problem of venereal disease the confidence of the patient should be won, and that the efficient treatment on which we rely to stamp out the disease should not be carried out in an atmosphere of holy horror.

Syphilis. There are two main types of this disease: (1) Acquired syphilis, in which the causal organism, the 'spirochaeta pallidum,' is conveyed from individual to individual by contagion. This contagion is almost always by sexual intercourse, and though in a few cases the infection is acquired innocently by extra-genital contact with an infected person or in surgical operations by accidental occurrences, there is no doubt that one must be sceptical when the infection is claimed to be innocent by the patient and yet he or she has a genital sore. Syphilis is usually acquired by extra-marital intercourse because of the great reservoir of venereal disease formed by the prostitute class, but it must not be

forgotten that syphilis may be acquired by marital intercourse, in the case where one or other partner is infected. It is safe to assume that when a man acquires syphilis it is most probably from extra-marital or promiscuous intercourse, as the married woman is less likely to be the infecting partner.

(2) Inherited syphilis, in which the 'spironema pallidum' is conveyed to the child by either or both of its parents. The child is born with the causal organism of syphilis in its body tissues, and hence congenital syphilis is always a generalized disease from the very beginning.

The course of acquired syphilis. As short as ten days or as long as ten weeks after exposure to infection has taken place, the first signs of the invasion of the spironema pallidum are seen in a sore on some part of the genital organs. During sexual intercourse the organisms have entered through an abrasion of the skin or mucous membrane of the genitals and multiplied to form an ulcer or ulcers. This is called the primary sore or primary chancre and is at first localized. It proceeds to develop, but the infecting organism is unfortunately not content to remain in the primary sore but in the course of time spreads by way of the perivascular lymphatics to the blood stream, and may invade any organ or tissue of the body. Very occasionally extra-genital primary sores occur in order of frequency on the lips, the breasts, the fingers, the eyelids, the tonsil and tongue. Wherever they may occur the lymph glands in the neighbourhood soon become enlarged, and one knows then that the next stage will be an invasion of the blood of the patient. There are many conditions of entirely innocent nature which may be confused with the true primary sore, and hence it is important that a patient who has a sore on the genitals should place himself in the hands of a doctor at once, who by microscopic examination of the serum from the sore can demonstrate the presence or absence of the spironema pallidum and who can also properly assess the clinical features of the case. The doctor has also a powerful diagnostic weapon in the blood tests known as the Wassermann test and Khan test. These tests become positive when the patient's blood is examined after the fourth or fifth week of the disease. The importance of early diagnosis is enormous, as we want to catch the spironema before it begins its general invasion of the body, at which stage it is much more difficult to eradicate. This secondary stage of invasion results in a great variety of diseased conditions of the skin and other parts of the body. Skin eruptions now appear on the surface of the body and are usually very widespread and very varied, from a rose-coloured flush to pimples and heaped-up warty growths on any part of the body. This is perhaps the most repulsive stage of early syphilis and frequently brings the patient for treatment.

The face and mouth and inner surface of the mouth are frequently involved with ulcers and sores which are infectious and give rise to the possibility of extra-genital spread of the disease. The early rashes and eruptions may temporarily disappear, and as months pass tend to be replaced by later rashes of a more localized but heavier type, and scars of these eruptions may appear. After a varying time, which is very difficult to state accurately, and which may be weeks, months or years, the organism tends to settle down in the organs and deeper tissues of the body. This is called the tertiary stage, and not one organ or tissue of the body is immune from attack. The patient may have been untreated, and the tragedy of the disease lies in the fact that he takes the inward retreat of the organism as a sign of cure, not knowing the great danger in which the vital organs of his body now stand. He is less likely to infect others in this tertiary stage, but is bound to become a less efficient citizen or even a burden and danger to society by means of the late manifestations of the disease. He may suffer from disabling chronic ulcers of the leg, from crippling disease of bones, from eye disease and blindness, from ulceration of his scalp, from ear disease, from rheumatism, from heart disease, liver disease, arterial disease, kidney disease, nervous disease, and even insanity. It is impossible to enumerate them all. In addition, the subject of tertiary syphilis is less able to stand surgical operation and respiratory diseases like pneumonia, and there is some evidence that the syphilised person is one who is more liable to develop leprosy.

CONGENITAL OR INHERITED SYPHILIS

This type of syphilis derives its great importance from the fact that a vast number of innocent persons may be afflicted with the disease through no fault of their own. The damage and suffering caused are much greater than in the case of gonorrhoea infecting a child, and hence syphilis will always remain the major problem in venereal diseases work. Congenital syphilis was first described by Paracelsus in 1529, and in 1861 Hutchinson gave us a graphic and classical description of the disease, and the notched peg-shaped incisor teeth seen frequently in congenital syphilitic children bear his name. Syphilis is undoubtedly more often transmitted to the child by the mother than by the father. Direct paternal transmission is rare, and the mother of a congenital syphilitic child almost always suffers from syphilis. This maternal syphilis may or may not have been acquired from the father of the child. There are cases on record in which a mother with no signs of syphilis has given birth to a syphilitic child procreated by a syphilitic father; this child in course of time infected the mother. But in general it must be understood that maternal syphilis influences heredity much more than paternal syphilis, and if both parents are syphilitic the influence is of course very strong.

If a mother is syphilised at or near the time of conception, the influence is so strong that two-thirds of the foetuses die 'in utero.' During the first year of untreated syphilis in the parents, this potency for harm is greatest, and by the fifth or sixth year this virulence slowly decreases, and syphilis may cease to be transmitted. Up to 15-20 years of untreated syphilis, however, the disease may be handed on to unborn children. Thus time is a healer even in untreated syphilis, but active treatment of the mother is better, for proper treatment of the mother during pregnancy may eliminate the infection. There is a prejudice against the treatment of a pregnant woman by drugs: in the popular view, a pregnant woman should be chary of taking any treatment by drugs. The alternative before a syphilised pregnant woman should thus be clearly understood, namely, a long succession of miscarriages leading up to a few weakly, sickly children and endless ill-health for the mother herself. *Treatment of the parents has a much quicker and deeper effect than time in lessening the transmissibility of syphilis.* If treatment has been begun before the third month of pregnancy, a healthy, living, normal baby, with no stigmata of syphilis, may be confidently expected. The syphilised child, on the other hand, may be born dead, or be so riddled with disease as to barely survive birth. There are all types from this up to the child which is born healthy, to all appearances, but which develops syphilitic stigmata later in life. For those who are in charge of schools and institutions, it is probably the better plan to hand over the recognition and diagnosis of congenital syphilis to the school or institution medical officer, and not to try to recognize the condition unaided. The diagnosis rests largely on the Wassermann test, and other signs, and if the school medical officer even wants to take the Wassermann test of the whole school, loyal co-operation with him will be well repaid. There is a vast amount of ill-health and loss of school attendance due to congenital syphilis, and the question is of first importance. The syphilitic child as an infant is usually a wasted pitiable creature, with eruptions and snuffles, abscesses, eye troubles, ear troubles, bone disease, and so on, and death often occurs in the first year of life. If such a child survives, wasting and retardation of mental and physical development remain painfully evident. In children in whom the influence of heredity is weaker, trouble is usually deferred until later life, and in congenital syphilitics of the second, third, or fourth generation there may be little to show that they have been syphilised. But from school age to adulthood, a vast number of disease conditions may afflict the child, and, just as in acquired syphilis, no organ or tissue of the body is immune, and mental deficiency is not infrequent. A very important fact is that congenital syphilitics are very prone to other diseases, such as pneumonia, tuberculosis, and possible cancer in its various forms. The *morbidity* in congenital syphilis is very heavy.

HOW CAN WE PREVENT INHERITED SYPHILIS?

It is obvious that the first principle is the thorough and intensive treatment of all cases of acquired syphilis. Prevention of marriage until a clean bill of health can be proudly displayed by the contracting parties is also an obvious step. It is not too much to insist that no one should get married or arrange marriages in a country where syphilis is common without first getting tested the blood of both parties concerned. In the case where marriage has taken place and syphilis becomes evident in either or both, prevention of conception must be insisted on until treatment has been taken for two years, and all sign of disease, outwardly or in the blood, has disappeared. In the case where syphilis is discovered after conception has taken place, both parents should undergo thorough treatment, and especially the wife. Treatment must be commenced as soon as possible and be continued throughout the pregnancy up to a week from the birth. Then the parents should proceed to undergo the full course of two years' treatment.

Missionaries, pastors, teachers, youth workers should know all these facts of syphilis. They should disabuse their minds of the idea that a person suffering from syphilis must necessarily be stigmatized morally. How can a child or adolescent be held responsible for the moral blame of syphilis acquired perhaps by his father, grandfather, or great-grandfather? When a doctor informs one of the fact that a certain child or adult has syphilis, the tendency to impute moral blame must be resisted, and also the tendency to consider the disease 'infectious.' As has been pointed out before, if syphilis is infectious, it is so by the route of sexual intercourse or heredity, and there is comparatively little danger of any other form of contagion. Schools and institutions offer splendid opportunities for the treatment and control of congenital syphilis, and it is a work highly honourable for the teacher, missionary, pastor, and youth worker to co-operate in, for it makes for a purer and better nation.

TREATMENT OF SYPHILIS

It is unnecessary to say much about treatment, but it must be emphasized that prolonged treatment is necessary, checked by the results of the Wassermann or Kahn test. The drugs used are mainly organic arsenic in some form, and metals such as bismuth or mercury. These drugs are given by injection, and also potassium iodide is usually given by mouth. The cost of such treatment is so high that most patients in India do not persist with the treatment, hence it becomes increasingly evident that the municipal or local government authorities must one day take this work in hand, and provide free treatment to all at special clinics. Each town should clean its own Augean stables. However, whoever may pay for the treatment, the insistence on a full two years' course of treatment cannot be given up. In dispensaries and schools much can be

achieved in treatment by the giving of mercury-with-chalk and potassium iodide, especially if injections are impossible.

GONORRHOEA

Gonorrhœa is a contagious disease caused by a micro-organism called the gonococcus. It most often attacks the genito-urinary tract of the male or female, and may be found in one or more parts of this complicated tract after infection during sexual intercourse with an infected person. In every case the gonococcus and the poisons it produces may spread by way of the blood and lymph to other and perhaps distant parts of the body. After infection, two to ten days may elapse before any symptom appears. Then burning and irritation on passing water and a discharge from the urinary passage usually appear. The discharge rapidly becomes purulent, i.e., develops matter. If this purulent discharge is appropriately stained and examined on a slide under a microscope, the gonococcus can be discovered. Further proof can be obtained by culturing the organism, i.e., growing it artificially from the pus. The gonorrhœal patient is always a danger to others and to himself because of the high infectivity of the discharge. Unlike syphilis, it is very easy to spread the infection to other innocent persons apart from sexual intercourse, and the eyes must be particularly guarded from infection. Gonorrhœal ophthalmitis is a very severe eye disease, and the patient may contaminate his own eyes or the eyes of others. The patient should have baths, towels, etc., for his own use, and the greatest cleanliness and care about the disposal of the discharge should be observed. The urgency of treatment is great because of this contagiousness of the disease, and infected persons owe it to themselves and to others to commence treatment without delay; by doing so they will also prevent the disease from becoming chronic, and extending to the deeper parts of the genito-urinary tract. There is no known drug which, taken orally, will of itself cure acute gonorrhœa. The treatment must be local, and take the form of washing the infected urinary tract with solutions of suitable antiseptics, such as acriflavine, silver nitrate, and potassium permanganate. Drugs by mouth are also given, and injections of gonococcal vaccine, but main reliance is placed on careful local treatment. There seems to be an unfortunate tendency in India to omit the local treatment, but this is the most reliable of all our methods, and to give a patient injections of vaccine and 'trust to luck' is not sufficient to eradicate the disease. The acute early gonorrhœa must at all costs be prevented from settling down in the deeper parts of the urinary tract and in the sexual glands, such as the prostate. Many types of complications may occur, and, as late results, in the male there may occur stricture of the urethra with consequent difficulty in passing water, and sterility. The latter is by no means uncommon, and provides patent medicine vendors with a rich harvest. Some of the complications, such as prostatic abscess and gonorrhœal rheumatism are extremely painful and distressing. In the female, gonorrhœa is an important cause of ill-health and sterility, because of the frequency of infection of the uterus itself and the uterine tubes, and the great danger of the infection of a child's eyes at birth. For this reason all midwives have adopted the

practice of putting eye drops of a silver solution in the newly-born baby's eyes. So much trouble does gonorrhoea cause in the female that a gynecologist has said that if one removed gonorrhoea, gynecology, or diseases peculiar to women, would be cut by half. Children may acquire gonorrhoea from direct contamination from towels, baths, and clothing of an infected female patient, and occasionally by criminal assault by a male. Gonorrhoea is thus an important disease because of its contagiousness and because of its effects. If properly treated, the time taken to effect a cure is much shorter than in syphilis, but the patient should be under observation for from four to six months. The aim of this is to give a certainty of cure as opposed to apparent cure, and so that the patient can resume ordinary life in the confidence that he is not likely to get the disease again or give it to others, if he lives healthy and continent life. When six months have elapsed from the cessation of active treatment, the gonorrhoea complement fixation test should be carried out on the blood of the patient. If this test is positive, the patient cannot be considered as free from gonorrhoea. Gonorrhoeal treatment can be carried out in the home, but treatment at special clinics gives the most satisfactory results.

CHANCROID

Chancroid or soft sore may appear on the genitals after sexual intercourse with an infected person. It usually appears in one or two days after infection, and the first ulcer formed may give rise to several others near it. The sore may erode the tissue very widely and deeply, and in this it is helped by the presence of the sepsis. It may erode so deep as to break into the urinary passage and cause a fistula. Chancroid is usually painful, and there are often painful swellings of the glands in its neighbourhood. The organism causing the disease is Ducrey's bacillus. The finding of this organism and the failure to find the spirochete in serum from the sore is the means by which confusion with a syphilitic sore is avoided. It is very important to exclude syphilis as the cause of any sore on the genitals, because of the grave effects of untreated syphilis—and hence the necessity for consulting a competent doctor whenever such sores appear. The treatment of chancroid is entirely local, and only in a few cases may injections be called for. Though usually a very painful and troublesome disease, it is a local one, and not hereditary, or liable to cause late and widespread general effects, as in syphilis.

In conclusion, it hardly needs to be pointed out that in India a great sphere for missionary help is presented by the problem of venereal disease, and by sympathetic approach to the problem of hereditary syphilis. The disease is rather different in its behaviour as compared with Western disease, especially as regards the fact that there is a vast amount of outward manifestations of congenital syphilis *in which the Wassermann test may not be positive*, such as rashes, abscesses, general ill-health and malnutrition, mental retardation, blindness, deafness, heart and kidney troubles. Unless these are traced to their true cause, and the cause is openly recognized without the attachment of moral stigma, we shall not get very far in sizing up and tackling this great problem.