THE
British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

LONDON: SATURDAY, JANUARY 6TH, 1917.

Lectures

ON

**THE EARLY DIAGNOSIS AND TREATMENT
OF SYPHILIS.**

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[ABSTRACT.]

THE object of this course of lectures is not to set forth anything new, but to indicate certain practical points raised by the crusade against venereal disease, and especially the assistance which general practitioners and the hospitals can give to the measures introduced by the Local Government Board and the county councils. The early diagnosis and treatment of syphilis may be considered from two points of view—(1) that of the cure of the individual patient, (2) that of preventing the spread of the disease in the community. The second point of view, that of the community, is that which is specially at issue at the present moment—that is to say, we are to consider the early detection and the treatment of syphilis as public health measures. While we are dealing with the disease from this aspect we are at the same time endeavouring to effect a cure in the individual, but as a matter of practice we find that the two efforts do not quite coincide, for it is a much easier matter to render an infected patient non-infectious than to cure him of his disease.

To obtain the best results syphilis must be diagnosed early, and it is in this respect that we can claim that great advances have been made in recent years. In the first place, we must get rid of a practice which my experience shows me is still prevalent—that is, in a case of doubtful primary infection to wait until the so-called secondary manifestations develop. Let us always have this in our minds—the very presence of these secondary manifestations means a generalized infection. I know that in many instances when we see a patient with a chancre he is already the victim of a generalized infection, but we must abandon the expectant attitude. We must try and make a diagnosis at the earliest possible moment. Every day is of importance. Experience will help us to know what to look for, what mistakes to avoid, and by actual examination of the serum of the primary lesion we are able to demonstrate the *Spirochaeta pallida* in the majority of untreated primary lesions.

THE PRIMARY INFECTION.

The primary infection may be genital or extragenital. The spirochaete enters through some crack or fissure of the skin or mucous membrane, and an inflammatory reaction occurs after a latent interval. This reaction is the "chancre," and it usually appears from three to five weeks after contagion, but it may be earlier or later, the extremes being ten days and three months.

In the male, genital chancres occur on the side of the frenum, on the prepuce and glans, and in the sulcus behind the glans. Chancres at the meatus urinarius are rare, and sometimes a meatal chancre may invade the urethral canal. Multiple syphilitic chancres are not very uncommon. A case of two chancres on the body of the penis was shown at one of the lectures. Occasionally the primary lesion is on the skin of the pubic area or on the scrotum.

In the female, the labia majora and minora, the fourchette, clitoris, and meatus urinarius are the most common sites. Chancres on the cervix uteri are not infrequent, but the vaginal wall is rarely the site of a primary lesion.

The primary bubo is a single large indurated gland, with occasional small shotty glands in its neighbourhood. It has no tendency to suppurate.

Extragenital Chancres.

These are commonest on the face and fingers. Kissing is the usual cause of lip chancres, but drinking vessels, tobacco-pipes, and blowpipes used in glass-blowing are all known to have conveyed the infection. (During the course four cases of lip chancre were demonstrated.) The next most common sites are the chin, eyelids, nose, cheeks, and ears. In the mouth the tongue and tonsil are most often involved. Finger chancres commonly occur about the nails. I have seen them in doctors, surgical dressers, midwifery nurses, and dentists. I have seen a case of primary chancre of the nipple and anal chancres also occur.

Extragenital chancres are usually larger than the genital sores, and when situated in mucous cavities ulceration occurs early and the surface of the ulcer is often covered with a pseudo-diphtheritic membrane. The primary bubo in extragenital chancres is always large and hard, and has no tendency to suppurate, and these points are often of value in the differential diagnosis. It is, however, of the highest importance to have the serum of a doubtful lesion examined for spirochaetes without delay.

Diagnosis of the Primary Chancre.

In a very early chancre there may be little induration, but as a rule when the patient comes for examination the lesion has a characteristic cartilaginous hardness which, with the hard bubo, is sufficient to make a diagnosis. If the lesion has been untreated, the surface may be scraped, or what is better, a fine pipette should be plunged into the substance. The serum obtained is placed on a slide with a few drops of normal saline solution, and examined by a $\frac{1}{2}$ in. objective by dark background illumination. The white spirochaetes are seen in motion crossing the field.

Another method of demonstration is to mix the serum with a solution of collargol (collargol 1, distilled water 19) as suggested by Harrison. A film is made by spreading the mixture on another slide and the preparation is allowed to dry. The examination is made with a $\frac{1}{2}$ in. oil immersion lens. The spirochaete shows up white on the dark background of the collargol solution, but it is not so easily recognized as in the former method, as it is not in motion.

The serum may be collected in a capillary tube such as is used for vaccination, and, the ends being sealed, may be sent through the post to a laboratory for examination. I do not recommend this method, which should only be employed if it is impossible to send the patient to the bacteriologist for examination.

The affections which may lead to error in the diagnosis of genital chancres are (1) traumatic ulcer, (2) herpes genitalis, (3) soft sore, (4) lichen planus. All these conditions are distinguished by the absence of induration and of the indurated bubo. Soft sores are usually multiple, the inflammatory reaction is much more acute and appears a few days after infection. The bubo in ulcus molle is usually tender, with surrounding painful swelling, and it tends to early suppuration. In herpes the lesions are superficial. They begin as vesicles which rupture early, producing painful non-infiltrated erosions. They appear

within a few days of coitus, and in some cases independently. There is often a history of recurrent attacks. Lichen planus of the glans penis is rare, but I have seen two cases in which a diagnosis of syphilis was made. The lesions are flat, shining, polygonal spots with no induration. There may be an eruption of the same type on the limbs and extremities. In exceptional cases lichen planus is limited to the penis. There is no bubo. Recurrence of induration in the site of an old chancre may take place from two to five years after syphilitic infection, and may lead to a suspicion of reinfection.

Extragenital chancres on the lips are usually not difficult to recognize if the condition be kept in mind. The finger sores may be thought to be whitlows, but any such condition in a medical man or midwifery nurse should be suspect and examined for spirochaetes. A case of localized beard ringworm which had been diagnosed as primary syphilis was shown. There was no bubo, and a microscopical examination showed the hairs to be infected with an ectothrix fungus. A case in which a primary sore of the nipple was diagnosed as cancer was described. The mistake should not have been made, as the patient had a general macular eruption and polyadenitis.

STAGE OF GENERALIZATION (SECONDARY STAGE).

The secondary stage, or stage of generalization, begins from five to eight weeks after the appearance of the primary sore. It must be remembered that in women the history of the primary affection is usually lacking, and in men it may be overlooked or forgotten.

It is important to bear in mind that in the secondary stage there are general symptoms, and it is dangerous to make a diagnosis on the skin eruption alone. There is often an irregular pyrexia. The patient is usually anaemic, the lymphatic glands all over the body are enlarged, hard, and shotty. The glands behind the sterno-mastoid, in the occipital and mastoid regions, and the epitrochlear glands should be examined in all cases. Albuminuria may occur.

The patient complains of loss of strength and wasting, and of headache and pains in the limbs, muscles, and joints. Sore throat may be the symptom for which advice is sought, and I have known fall of hair bring the patient for the first time to the consulting-room.

The Secondary Eruption.

The special features of the eruption which should lead to a suspicion of syphilis are:

1. *Polymorphism*.—The lesions are often of several types; macules, papules, and scaly spots coexist, but although the type varies, the size of the spots varies very little. One does not see large diffuse lesions.

2. *Dissemination*.—As a rule the eruption is widely spread and copious.

3. *Absence of Itching*.—Subjective symptoms are usually absent. The eruption appears insidiously, and itching is uncommon, but it must be borne in mind that this feature is not constant, and, moreover, a patient may be suffering from concomitant scabies or pediculosis.

4. *The Characters of the Individual Lesions*.—These are round, or tend to be round, and they are often grouped or in rings. Except in the case of the macular eruption they have a reddish-yellow, coppery, or hammy colour.

The various types of secondary eruption were briefly described, the remarks on this head being illustrated by cases and by coloured illustrations and photographs shown by the epidiascope.

Differential Diagnosis.—Special attention was directed to—

1. The *macular syphilide* (or roseola), which is the earliest eruption in the stage of generalization. It occurs about six weeks after the chancre, and lasts from three weeks to a couple of months, and sometimes recurs. The spots are rose-coloured, round or oval, rarely larger than a threepenny piece, and all about one size. There is no infiltration, and scaling is absent. The trunk, neck, and limbs, and the palms and soles are affected. This eruption may escape the notice of the patient, and if the examination be made in artificial light it may not be observed by the medical attendant.

Of the acute specific fevers, morbilli and rubella in the adult rarely cause difficulty.

Pityriasis rosea is often mistaken for the macular

syphilide. This eruption also occurs on the trunk and adjacent parts of the extremities. The lesions are oval or lozenge-shaped, and also small round spots. They are pink in colour, and are covered with fine scales attached at the periphery and free towards the centre. The spots are of varying size, and there is frequently the history of a "herald" spot, which, at the time of examination, is of larger size than the other lesions. The patient often complains of itching, there are no general symptoms, no polyadenitis, and no mucous membrane lesions.

Characteristic examples of pityriasis rosea and the macular syphilide were demonstrated.

2. The *papular syphilide* may appear on the rose spots or independently. The commonest type is *lenticular*, the lesions being round, red or ham coloured, raised firm spots with a shiny surface, and often with a ring of fine scales round the margin. The trunk, limbs, face, palms, and soles are affected.

Lichen planus is not infrequently diagnosed as a papular syphilide, but the characters are strikingly different. The lesions of lichen planus are polygonal, flat-topped, and shiny. They have a peculiar lilac or violet tint, and are not infiltrated. Itching is usually a prominent feature. The commonest sites of the eruption are the fronts of the forearms, legs, and the thighs, but sometimes the whole of the trunk and extremities are involved. Should the observer be led to suspect syphilis he will naturally examine the buccal mucosa and pharynx, and it is important to remember that in at least one-half of the cases of lichen planus the buccal mucosa is affected, but the lesions are white papules, streaks, or patches. There is no ulceration of the fauces, and there is no general enlargement of the lymphatic glands.

3. The *squamous syphilide* is an infiltrated papular lesion of coppery or ham colour, capped with scales. This type is common in the flexures. It may be mistaken for psoriasis. In psoriasis, however, the lesion is not infiltrated, and the scaling is of a bright silvery type, and as a rule some patches will be found in the characteristic sites—the extensor surfaces of the elbows and knees. Commonly, also, larger diffuse areas are seen in psoriasis, a type of eruption never seen in syphilis. There are no mucous membrane lesions in psoriasis and no general enlargement of the lymphatic glands. It must not be forgotten that psoriasis is a very common disease, and may coexist with syphilis. The history of previous attacks will here be helpful in the diagnosis.

The *seborrhoides* are also sometimes mistaken for the scale syphilide. A case in which the error was made was demonstrated. The seborrhoides consists of rounded spots or circinate lesions covered with greasy scales. The scalp is commonly affected and red areas covered with greasy scales may spread on to the margin of the forehead producing the "corona seborrhoica." On the trunk the seborrhoides show a predilection for the middle line, the sternal and submammary regions, and the interscapular furrow. Itching is common. The mucous membranes are unaffected, and there is no general enlargement of the lymphatic glands.

4. The *follicular syphilide* is an eruption of miliary, dull red hard papules confined to the hair follicles. They are often capped with a dry scale and sometimes become pustular.

Severe cases of *acne vulgaris* involving the back may be mistaken for the follicular syphilide, especially if there are numerous infiltrated lesions and many scars. As a rule there is a long history and comedones or "black heads" are found in large numbers. Acne does not cause general enlargement of the glands and there are no mucous membrane lesions. Syphilis, of course, may occur in a patient suffering from acne vulgaris.

5. *Rupia* is an ulcerative type of secondary syphilide occurring in cachectic and alcoholic subjects. It is comparatively rare. The rupial lesion is a round or oval ulcer with steep sides and a purplish margin, and a soft base from which exudes a blood-stained pus. This pus dries to form a characteristic limpet-shell crust. It heals with deep scarring.

The only affection liable to lead to error is neglected patches of psoriasis with masses of brownish scales. On removing the scale the psoriasis lesion presents a number of bleeding points, but there is no ulceration, as in rupia. Psoriasis does not leave scars.

6. *Syphilitic keratoderma* demands a few observations. The lesions are characterized by an increase in the horny layer of the epidermis of the palms and soles. They often form gyrate figures of a dull coppery colour covered with a horny layer. They may be mistaken for chronic eczema or psoriasis. In any case of doubt the blood should be examined by the Wassermann test.

7. *Syphilitic Alopecia*.—In the first year after infection the hair tends to fall. In some cases all that is noticed is a general thinning of the hair, but in others there are patches of baldness. These are often characteristic, the bald areas being of small size, as if the hair had come out from numerous spots about the size of the tip of the finger.

I have had cases of this type sent to me as alopecia areata. In the latter affection the bald areas are of round or ovoid form, quite smooth, and tend to spread peripherally. At the margin one is often able to demonstrate hairs thicker at the distal than the proximal end.

8. *Pigmentary Syphilide*.—As an aid to diagnosis I specially desire to draw attention to a curious pigmentary affection occurring in the first two years of syphilis. It consists of greyish or brownish staining of the neck, especially on the lateral aspects. From its situation it is called the "Venereal Collar." The margin of the pigmented area is ill defined, but the surface is studded with white spots, with a sharp outline varying from a split pea to a shilling in size. The dappled appearance is striking and characteristic. It occurs almost exclusively in women. Arsenical pigmentation resembles it closely, but is almost always found on the trunk—that is, on covered parts.

9. Certain drug eruptions may be diagnosed as syphilis. I have known this occur in the case of copaiba, the association of gonorrhoea with a rash leading to the error. The copaiba rash is all of one type, resembling urticaria or morbilli, and there is itching. I have also known an eruption due to iodides diagnosed as syphilis. The iodide eruption is bullous, and commonly affects the face and neck. The vegetating syphilide may be mistaken for an iodide eruption. The history and general symptoms should help in the diagnosis, and in any doubtful case the blood should be tested.

Lesions of Mucous Membranes.—The mucous membrane lesions of syphilis are usually very helpful in making a diagnosis, and on no account should an examination of the fauces, buccal mucosa, tongue, and anal region be omitted. The following points are worthy of notice: Aphthae are rounded yellow, painful superficial lesions occurring on the gums and buccal mucosa. Herpetic lesions in the mouth are also painful. Neither are associated with an eruption on the skin nor with generalized induration of the lymphatic glands. Erythema multiforme, with extensive lesions in the mouth, may be diagnosed as syphilis. The skin eruption especially affects the extremities over bony prominences. There is no general enlargement of the glands, and there is often a history of previous attacks. Condylomata have been mistaken for piles, but the error is due to want of care in examination.

SOME CONCLUSIONS.

I would remind you that syphilis, as Hutchinson taught us, is a great imitator. Always have syphilis in your mind, and particularly when you see what looks like a common variety of eruption with unusual distribution, and where there is an eruption of several types co-existing. Do not make a diagnosis on the rash alone; look for confirmatory signs in the glands and the mucous membranes. Do not pay too much attention to the history, and in any doubtful case take a specimen of the blood and send it to an expert for the "Wassermann" test. Here let me give you some figures as to my own experience with this test. For some years I have sent cases, some hundreds, to Drs. Fildes and McIntosh for "Wassermann" examination. Of cases in which I was clinically certain of syphilis the following results were obtained:

Primary syphilis	...	W.R. positive in 90 per cent.
Secondary syphilis	...	W.R. positive in 99 per cent.
Tertiary syphilis	...	W.R. positive in 95 per cent.
Congenital syphilis	...	W.R. positive in 100 per cent.

(To be continued.)

Lectures

ON

DISEASES OF THE MALE URETHRA.

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LECTURE I.—URETHRITIS.

ETIOLOGY.

URETHRITIS is in most instances established by the direct implantation of a specific bacterium, the gonococcus of Neisser. Do not forget that it may be caused by other germs, such as colon bacilli, streptococci, staphylococci, and so forth. Investigate all urethral discharges under the microscope. In a consecutive series of one hundred cases, a gonococcus was found in eighty-four, a streptococcus in five, a staphylococcus in eleven cases.

How is the disease contracted by the male? It is contracted in the majority of cases after connexion with an infected woman. Do not forget that a man may contract the disease even though he has used a condom. I have known many instances of this. He probably infects himself by soiling the urethra with the fingers after he has removed the condom, or by washing the penis afterwards in an infected utensil, or the condom may have broken. Urethritis due to other germs than the gonococcus may be contracted from a woman who is menstruating, from a woman who has non-specific vaginitis set up by causes such as an unclean pessary, or by rectal coitus. I have instances of all these. Before the war I had seen only a few undoubted instances of urethritis contracted from infected towels, bathing drawers, or water-closets. Since the war I have seen a number of cases contracted from these sources, as the soldiers are often thrown together at the front or even in camp at home under conditions which favour such contagion.

Spontaneous or Haematogenous Urethritis.

I have on several occasions observed a man develop a slight urethritis at the onset of measles, no germs being distinguishable in the discharge, but only pus and epithelial cells. These discharges have cleared up without treatment. I have also observed a case of mumps that began with orchitis and slight purulent urethral discharge. I have also observed several cases of spontaneous urethritis due to the colon bacillus in men who were very run down, who had not been exposed to infection, and who developed urethritis with or without simultaneous attacks of haematogenous prostatitis and pyelitis.

SURGICAL ANATOMY OF THE URETHRA.

An understanding of the surgical anatomy of the urethra is essential in the study of urethritis (Fig. 1).

FIG. 1.—Diagram of the male urethra.

The first conception to get into your minds is that the urethra is divided into two portions, the anterior urethra and the posterior urethra.

The point of division is the compressor urethrae muscle ("cut off" muscle) which surrounds the membranous portion of the urethra.