LETTSONIAN LECTURES ON SOME MOOT POINTS IN THE NATURAL HISTORY OF SYPHILIS.

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LECTURE III.

(Concluded from page 242).

Are there any Chronic Skin-Diseases which are due to the Inheritance of Syphilis?—The Nervous System.—Idiocy in Connection with Inherited Syphilis.—Conclusion.

Are there any Chronic Skin-Diseases which are due to the Inheritance of Syphilis?—The question which I next propose to consider is, as to whether there are any chronic skin-diseases which are caused by the inheritance of a syphilitic taint. We shall pass by those which occur in infancy; with these we are all sufficiently familiar. We know well that an infant born with this taint is very likely to display, during the first six months of life, various forms of eruption. We know also that these are usually transitory, and that, if the child survive, it will in all probability be quite free from rashes before it is a year old. In a large majority of cases, and especially in those treated by mercury, the liability to skin-eruption does not last more than a few months. It may be that condylomatous patches at the anus or on the lips may persist longer, or even originate later, but nothing which can be properly called a skin-disease is commonly seen. In inherited syphilis, we seldom witness the relapses which are common in the eruptions due to the acquired disease. We look at later periods for the results of former skin-affections, for fissures at the angles of the mouth, for little scars or pits on the face and other parts, and we value these as evidences which help our diagnosis, but we never expect to see any extant eruption. The skin may be pale, thin, abnormally soft, but it does not show any liability to inflame. I am stating broadly the general fact; I purpose now to examine the question in a little detail; to ask whether this suggested immunity applies to all periods, or only to those immediately following infancy.

Before we proceed further, permit me to remind you that the infant who inherits syphilis gets the disease in a different manner from that which obtained in the case of its parent. I hold that it is almost certain that in each instance a particulate and living virus passes into the victim's fluids. The infant who inherits syphilis does not simply take over from its parents tissues which have peculiar proclivities to disease, as in the case of inheritance of cancer, gout, or scrofula. It takes over, *plus* the peculiar tissues, a virus which is capable of multiplying in its blood, and of producing a somewhat acute febrile illness; a virus which, whilst it is active, makes its bloods and fluids contagious, but which after a time ceases to be active, and loses its contagious properties. In this important feature, the inherited and the acquired forms are alike; both pass through a definite stage of secondary symptoms; but, as regards the primary stage, they differ in a very important and possibly a very influential point. In the acquired disease, the virus in the first instance breeds in a group of epithelial or epidermic cells, whereas, in the case of the infant, there is no local breeding; but it exists, it may be in the blood, it may be throughout the body, from the first. I will assume that we are all aware that, in many cases of inheritance—perhaps almost all—there are at the time of the child's birth no signs of the disease. The virus is latent, and it appears to be necessary that respiratory processes shall have been carried on for a certain time to enable it to assume activity. Most syphilitic infants look quite well when born, and only begin to be ill at the age of a month or six weeks. At the age named, and for a month or two afterwards, they often suffer very severely. To return to my point, it is conceivable that the special nidus of first growth of the virus may have a modifying influence on its later tendencies, and

that which has begun its life in mucous or cutaneous tissue may retain ever afterwards a proneness to attack these. I scarcely think, however, that this hypothesis is the correct one, for I shall have to assert presently that not only is the skin comparatively exempt from attack in the later periods of inherited syphilis, but that the nervous system in a scarcely less degree shares the immunity.

Let us ask for a moment how the skin behaves in cases of acquired disease. Well, it usually displays a general and symmetrical eruption during the secondary period, and this is usually cured by mercury, or disappears of itself. There remains, however, a great risk, even in the cases of most rapid and complete disappearance, and of most efficient treatment, that a recurrence of the eruption may occur. The patient may have a rupia which may last him a year or two, on and off, or he may have milder symptoms, which we sometimes term "reminders," amongst which psoriasis palmaris, and erythematous rings on the trunk and limbs, which come and go, are amongst the commonest. Who ever saw a child with psoriasis palmaris, or with syphilitic rupia? I am speaking, of course, of postinfantile periods. But even commoner in the adult than those which I have mentioned, though occurring at a later period, are the various forms of syphilitic lupus. These may vary in severity from the most superficial form of serpiginous erythema to the most exaggerated types of the lupoid tubercle, and they may occur at periods of many years after the original taint. As a rule, we never see such diseases in those who have inherited their taint. What I have said applies not only to the skin, but to the mucous membranes also. We do not see, in those who have taken the disease by inheritance, the ulcers in the mouth, the sore tongues, the strictures of the rectum, with which we are so unfortunately familiar in adults. I appeal to the general experience of all who have seen much of inherited syphilis for confirmation of statements. I shall now proceed to examine the exceptions to them.

First, then, let me grant that there is a rare form of lupus which is directly due to inherited syphilis. It occurs usually at about the same age as the interstitial keratitis; that is, from five years old to adult life. It differs from common lupus, and even from the forms of lupus which occur in connection with acquired syphilis, in that it is never preceded by any tubercular stage, but is from the beginning erosive, or even phagedænic. It is, in fact, a form of phagedæna, but it attacks usually the favourite position of lupus, the nose. Its progress is rapid, and it may in a few weeks destroy the whole nose, and spread upon the cheeks. I have seen a good many well marked examples of this malady, but none during the last five years, and I do not possess a single good portrait of it to show you. I have, however, several photographs which show its ravages, and the kind of scars which it leaves; these are very different from those caused by common lupus. The latter, as is well known, usually leaves a border of skin near to its margin more or less involved, it being difficult to get it absolutely well. This disease, on the contrary, heals absolutely, and the skin, up to its very edge, is left quite sound. Hence there results a puckered scar, which suggests that healthy skin had been more or less undermined, and its edges in the healing had fallen down together. This malady is never chronic. It may be cured in a few weeks by free cauterisation, and is always restrained, if not cured, by the iodide of potassium. The latter remedy is not nearly so effectual as cauterisation. In this fact, you will see an item of evidence in support of the view which regards it as a form of phagedæna rather than of lupus. Such, indeed, it is. It seldom or never recurs after once stopped, and it never leads to anything resembling common lupus. Whether, indeed, it is originally a skin-disease I am not certain. I have never seen it in its very earliest stage, and it may be that it usually commences as a periosteal or perichondrial gumma of the septum nasi. The septum is always, to some extent, involved.

By the side of this disease, which we may suitably call phagedænic lupus, and which has its exact analogue, and one far more common, in the acquired disease, we may place certain similar forms of ulceration which occur on various parts of the limbs in association with disease of the bones. Let me here remark that it is precisely in respect to the bones that the subjects of inherited taint suffer more severely than do those who have acquired it. Multiple nodes are in them very common, especially in the long bones; and a large proportion of the specimens of chronic sclerosis of long bones, so frequent in our museums, are from those who have been the sufferers from inherited taint. As a rule, the chronic periostitis which occurs under these circumstances does not lead either to suppuration or to necrosis. It leads to sclerosis and overgrowth in all directions. Sometimes, however, suppuration takes place, and the roughened bone is exposed, and may exfoliate. In these cases, a sort of secondary implication of the skin may result. As a rule, it is obviously

secondary, and is limited clearly to the region of the diseased bone; but, in some, the appearances may suggest the diagnosis of skin-disease from the extensive implication of the latter.

I show you here a portrait of a young lady from Dublin, in whom a very peculiar sort of lupus of the skin of the forehead occurred in association with periostitis. It is, however, so rare, that really I have never seen anything else exactly like it, so that I am sure you will admit that, for practical purposes, I need not dwell upon this disease.

If you ask me whether there be not some forms of psoriasis, of lichen, or of eczema, which really acknowledge a parentage in hereditary syphilis, I unhesitatingly answer, No. I know of nothing of the kind. I have seen great numbers of those who, by their teeth, their keratitis, or other conditions, could be recognised as beyond doubt the subjects of this taint, and I have scarcely seen one who was the subject of a chronic skin-disease. I never saw acne either common or in any way peculiar in these patients. In numberless cases, nervous parents, or medical men almost equally anxious, have quoted to me the fact that a child was liable to spots on the face or body, in proof that an inheritance of syphilis existed. Many a father, cognisant of dangerous antecedents in himself, has made himself miserable by suspicions of this kind, and in not a few have I seen that my most explicit assurances failed to remove his doubts. To you, I may now say that I do not remember a single instance in which I have recognised an eruption in a child after the first two years of infancy, which I believed to be syphilitic. I, therefore, feel justified now, when I am asked about eruptions when it is impracticable to examine the patient, in assuring those who consult me that, in all probability, the rash is nothing but a simple one, and that, as a matter of fact, inherited syphilis never discloses itself in that way. You will see that this observation, if it be trustworthy, is very important. I should examine, with the utmost interest, any cases produced by others, or published records, which might seem to confute it. For the present, I simply record my own belief.

The Nervous System.—In my paper introductory to the discussion on syphilis, at the Pathological Society, in 1876, I mentioned amongst the features of difference between acquired and inherited syphilis, that diseases of the nervous system were rare in the latter. This subject has, since then, received much attention. Dr. Hughlings Jackson,¹ as was fitting, led the way in a valuable paper read before the St. Andrew's Graduates' Association, in 1868, in which he recorded examples of epilepsy, hemiplegia, idiocy, and other affections occurring in the subjects of inherited taint. Dr. Barlow also published cases, and proved to us that disease of the arteries of brain from syphilis might occur even in young children. The zealous investigation of observers such as those I have mentioned, and many others, have, however, not resulted in showing that any large number of cases of central brain-disease occur in this association. Almost all the variety of affections which we see in connection with acquired syphilis, may be met with occasionally in those who have inherited it, and in association with similar lesions. We may have meningitis, neuritis, and diseases of vessels with all their variety and consequences, but they are far more rare than in the subjects of acquired disease. Nor are we justified in all the examples of such maladies as epilepsy and chorea, when we meet with them in those who are unquestionably hereditarily syphilitic, in believing that they are necessarily in any kind of causal relation with that taint. I have Dr. Hughlings Jackson's authority for saying this. He tells me that under such circumstances he has repeatedly met with these maladies presenting no features of difference from their non-specific prototypes, and curable by the ordinary measures. Respecting epilepsy, it is, he thinks, only when it assumes the unilateral character (Jacksonian epilepsy), and is therefore presumably due to a local and cortical lesion, that we are justified in suspecting that it may be due to syphilitic changes.

The large group of nervous affections attended by neuritis and sclerosis which we encounter in the late stages of tertiary syphilis of the acquired form, appears to be scarcely represented in the subjects of inherited disease. I do not know of any case of locomotor ataxy which has been recorded as occurring in such association. I have never myself seen one, and exceedingly few of those paralyses of single ocular nerves which are common in the acquired disease. I have seen one example of ophthalmoplegia externa—indeed, possibly two—but of the more generalised disease (ataxy) not a single one. It may be plausibly objected, that the number of the subjects of inherited taint who survive to adult life is far smaller than that of those who have passed through the acquired disease; and also that we but rarely trace

them up to that period of life at which ataxy usually occurs. These suggestions may be adequate to a certain extent, but do not, I think, explain the whole; and I cannot but believe that it remains a very remarkable fact that inherited syphilis does not appear to mangle the tissues, and to leave them permanently vulnerable, in the way that the acquired disease frequently does. Diseases of the secondary class occur during a much more protracted period; but, when they have passed, the patients remain, as a rule, free from any tendency to other maladies. In a word, true tertiaries, such as are non-symmetrical, and serpiginous affections, are rare in congenital syphilis. Not only do we but seldom encounter disorders of the nervous system, but palmar psoriasis, chronic affections of the tongue, sarcocele, and gumata of the viscera, are alike rare. Excepting in the infantile period, congenital syphilis but rarely shortens life. It does not in any special manner predispose to anything.

Late one evening, not long ago, my servant announced that a shabbily dressed man wished to speak to me. My man would evidently have been pleased, had I obeyed my first inclination of declining to see him. I did not do so, and was rewarded for my self-denial, as on many other occasions, by obtaining a valuable clinical fact. The man brought with him his photograph of more than twenty years ago, which I had had taken in the early days of our recognition of the syphilitic physiognomy and teeth. He was then a boy aged 9, and now a married man aged 32. His features were very much deformed, and his teeth typical. I had formerly treated him for a severe attack of double keratitis, and his mother, at the same time, for a tertiary ulcer on the leg. I had not seen either of them for more than twenty years. He told me that he had enjoyed excellent health ever since, and that he worked constantly in a paper-staining business. A fear that his sight was failing him had now made him wish to see me. At first I thought it would probably be an example of progressive choroido-retinitis, but, on examination, it proved to be only aggravated myopia. Thus it appeared that all kind of activity in his taint had ceased with the attack of keratitis. I may add, in passing, that he told me that his mother also had remained perfectly well ever since her treatment. He was himself married, but had no children. It may be replied that isolated cases prove nothing, and that, after all, the lad's mother should be allowed to pair off against himself, showing that neither after acquired nor after inherited disease do remote sequelæ always follow. I have, however, had many opportunities for similar observations of the immunity in those who suffered up to the age of puberty from all other forms of disease. In nearly all cases, the attack of keratitis is the last of the phenomena.

Idiocy in Connection with Inherited Syphilis.—Idiocy in connection with congenital syphilis, is certainly not common. I have seen a very great number of the subjects of inherited taint who have attained adult life, and whose intelligence was excellent. I have at the same time seen a few in whom, at different periods of life, cerebral disorders were slow to develop, which were attended with mental derangement now and then mounting to imbecility. In one case, a lad whom I had long known as having suffered from interstitial keratitis, etc., became an inmate of Colney Hatch Asylum, and there died; but I do not know what precise form his insanity took. A girl, aged about 10, who was brought over from New Zealand quite blind with white atrophy, and in whom the evidences of inherited taint were perfectly clear, was passionate and uncontrollable in an extreme degree, and, I believe, became ultimately insane. In another case, a poor woman aged about 35, married, and the mother of a healthy child, but herself quite deaf and almost blind as the result of inherited taint, became gradually sleepless, peevish, and restless, until her condition really amounted to that of lunacy. I once had an opportunity for making a necropsy in the case of a young man the subject of inherited syphilis, who had died after very slowly aggressive symptoms of brain-failure. We found the skull considerably thickened, but did not discover any other noticeable changes.

I have seen several times, in consultation with Dr. Langdon Down, a young lady who has been for long under his care as an imbecile. Under his treatment, some of her faculties have been much developed, but she is still in many respects quite childish. She has a well-marked syphilitic physiognomy, a pair of characteristic teeth, and she has passed through a very severe attack of interstitial keratitis. The state of her eyes when I last saw her was very peculiar. She is so nearly blind that she can only just see large objects, and cannot read the largest type. In both eyes there is a little haze of cornea remaining, and the ciliary regions are dusky. In both, the pupil dilates well with atropine, and the fundus can be inspected. The conditions are, however, not alike in the two eyes. In the right, the optic disc is white and the central vessels very small, but I could

¹ See Cases of Disease of the Nervous System in Patients the Subjects of Inherited Syphilis (*Trans. St. And. Med. Grad. Assoc.*, vol. i, 1868). Nervous Symptoms in Cases of Congenital Syphilis (*Journal of Mental Science*, January, 1875).

find no disease in the choroid; in the left, the fundus is obscured by considerable opacity in the lens and by films in the vitreous humour. It can be made out beyond doubt, however, that, in addition to a white optic disc, there are signs of very extensive choroidal disease. These consist, as usual, in patches of absorption, or in changes resembling retinitis pigmentosa, but chiefly in dense round black dots and patches, which occur plentifully on all parts of the fundus without special arrangement, and resemble spots of ink on a sheet of blotting-paper. I have noted just such appearances before, in cases of brain-defect allied to idiocy. It is interesting to note that, in this case, there has never been any failure in hearing. There can be little doubt that she has been the subject of optic neuritis, but it is impossible to assign dates with exactness. She asserts that, a few years ago, she could see well enough to read, so that it is certain that there have been some aggressive changes of late years.

The precise date at which the brain began to suffer in Dr. Down's patient was not known, but it was certain that the idiocy was not congenital. It is at about the age of eight or nine that the brain begins to fail. Even in the early period the attack rarely proceeds to any high degree of intensity; acute outbreaks are very rare. This is in keeping with what we observe in connection with choroiditis, which rarely destroys the sight, but produces, as a rule, changes only in the periphery of the fundus. Dr. Hughlings Jackson has drawn our attention to the probability that a pia-matrititis may be in some sort the analogue of choroiditis, and may occur under similar conditions; and Dr. Judson Bury has proved, from necropsies, that a state of secondary atrophy of the grey substance of the convolutions may be the result.

As a matter of clinical observation, I would suggest that it is not at all uncommon to note a slight deficiency in vigour of intellect in the subjects of infantile syphilis, but that anything amounting to dementia is certainly rare. These defects, whether very slight or more severe, are, I think, rarely aggressive, though I have known a few in which the symptoms implied slowly advancing changes. In one such, many years ago, I obtained a *post mortem* examination, and found the skull-cap thickened and sclerosed, and the brain atrophic.

It has been a matter of general remark amongst authorities on that subject, that well-marked examples of inherited syphilis are not frequently seen in our idiot asylums. Many years ago, my friend, Dr. Daniel Hack Tukey, persuaded me to visit with him the Earlswood Asylum, with special reference to this point, with the result that, as I have already said, we found only a very few who could be reasonably suspected of being syphilitic. Dr. Langdon Down subsequently, from more extended investigations, recorded a similar opinion; and, on the other day, in conversation, this high authority told me that he had seen no reason to alter his opinion. In the *BRITISH MEDICAL JOURNAL* of January 30th, Dr. Shuttleworth, of the Lancaster Asylum, in a lecture upon the causes of idiocy, upholds the same view, stating that he had not one patient under care in whom syphilis could be suspected, and adds that characteristic teeth are rare in idiot asylums. Dr. Judson Bury, in an excellent paper in *Brain* of April, 1883, maintains a somewhat different opinion, and thinks it not improbable that there are more cases due to this cause than have been suspected. He urges the importance of taking a wider basis for diagnostic recognition, more especially the examination of the choroid. It is quite true, as I have indeed often urged, that we must not content ourselves with the inspection of the teeth. Probably only a minority of the examples of inherited taint do the teeth show any peculiarities, and in many in which they are damaged, they are yet far from being characteristic. If we would wish to be successful in our diagnosis, we must take into simultaneous consideration the whole group of phenomena which we now know are often connected with the taint. If this were done, Dr. Judson Bury thinks that we may probably find syphilis as a cause in not a few cases of juvenile dementia.

As might have been expected from the fact that syphilitic infants are generally born with all the appearances of perfect health, we do not find congenital idiocy, whether microcephalic or otherwise, in other than the very rarest connection with this taint. It is at the same period of life that we encounter disorders of the sense-capacities, choroiditis, keratitis, deafness, and the like, that we find the chief risk to the brain, and thus the failures of intellect are to be classed rather as the dementia of children than congenital idiocy.

Case of Defective Brain, with Atrophy of Optic Discs, in association with Inherited Syphilis.—A young man, who was sent to me by Dr. Barnes, of Ewell, afforded an excellent example of the slighter form of the mental defect sometimes met with in connection with inherited syphilis. There could be little doubt that there had been in infancy a temporary condition of meningitis, attended by optic neuritis. The

lad was brought to me on account of defective sight, and in the hope that he might be helped by spectacles. I found that his pupils were of unequal size, and not very active, and that he could see only 22. He was 17 years old, and engaged in a builder's office. He had a pair of typical teeth, and a physiognomy which was fairly characteristic. There was no history of any illness that he could remember, but he had been told that he was ill in infancy. He was the eldest of his family, one older than himself having died young. His father had died, after a four years' illness, of "softening of the brain." Long before his illness, he had suffered from "headaches, which made him eccentric and of unbearable temper." It may be conjectured that the so-called softening was really due to slowly aggressive syphilitic changes. On using the ophthalmoscope, I found the optic disc in each eye very pale, and its margins indistinct. The central vessels were not in the least concealed, nor were they much diminished. Near to the disc were some groups of faintly marked minute pale dots in the choroid. None of these had any pigment at their edges. In the extreme periphery of both were ill-defined patches of similar dots, and after considerable search I found a few lines of black pigment in the retina. There were no large patches of absorption in the choroid, and the changes were altogether very inconspicuous. Still, there could be no doubt that he had experienced an attack of neuro-retinitis, and that slight changes were now in progress in the direction of retinitis pigmentosa. It should be stated that it had been observed that he could not see well by artificial light, and that his pupils dilated but little under the use of atropine. As yet, no attack of keratitis had been experienced, but probably it is to come. Nor was there any deafness. As regards his brain-condition, the lad was so nervous that I could scarcely get him to speak to me or to read the test-types. A friend who came with him told me that he was decidedly defective in intellect, and much behind other boys of his age. It was believed that his sight was slowly becoming worse.

It is, I think, not uncommon for congenital syphilis to damage, in some slight degree, the whole bodily development; its subjects are not very unfrequently short in stature, and a shade below the average in general capacity. Sometimes there appears to be special defect in sexual development. In a few rare cases, this general defect is very marked. I have seen two or three young women (adults), the subjects of inherited taint, who were dwarfed, and had no sexual characteristics. Their mammae were not larger than those of boys, and little or no sexual hair was present. In one such, we had the opportunity of a *post mortem* examination, and found the uterus and its appendages of extremely small size. Thus, the extreme length of the uterus was less than an inch and a half. Lancereaux has related a somewhat similar case. I have seen young men also, under similar conditions, in whom the sexual development was exceedingly slight. To what local lesion in infancy, or during intra-uterine life, we should assign such general arrests, I do not know; unless, indeed, we conjecture that they have to do with changes which have taken place on the surface of the hemispheres. In a few, very exceptional, instances, indications of cerebral failure continue to advance with extreme slowness during life. These are probably analogous to the pseudo-retinitis pigmentosa which occurs in inherited syphilis.

Conclusion.—Had time permitted, Mr. President, there are yet many questions which I should have much liked to bring before you. For example, I should have liked to state the extremely difficult problem as to the true nature of pemphigus of infants. This affection, which attacks for the most part the hands and feet only, is a disease of the first week of life, and usually ends fatally before the infant is a fortnight old. It often carries off several infants in succession. Why should the inherited taint so deviate from rule? Why should it show its effects so soon after birth? and why should a local and not very severe skin-disease be so prone to end in death?

Another question of great interest is as to how it comes about that whilst syphilitic infants are generally quite healthy at birth, and remain so for three or four weeks at least, yet syphilis is so common a cause of abortion. Why, if it can kill the foetus so commonly, does it at the same time leave so many in perfect health, until the influence of open-air life has been brought to bear through a definite period? Why, if it can kill so many *in utero*, is it so infinitely rare for a child to be born showing either past or present evidences of taint? Is it the fact that, if the virus takes on activity at all in the foetus *in utero*, it almost invariably kills it? Have we for certain a state of the virus in which it is absolutely inactive, and neither retards development nor evokes local inflammations? Without doubt, in the facts to which I have adverted, we have to face a very obscure problem.

Nor is it easier to explain why one sex should suffer more fre-

quently from the results of inherited taint than the other. According to my statistics of heredito-syphilitic iritis, the proportion between the sexes is sixteen females to five males; whilst, although not so great, the disproportion is still very definite in the same direction in the case of interstitial keratitis. A re-examination of these facts, and the collection of evidence on a larger scale, might possibly disclose some higher law, of which as yet we have no suspicion.

In referring to the re-examination of facts, I may perhaps be permitted to mention certain classes of facts which it is very desirable to collect. They are chiefly of a character which can be obtained only by those engaged in family practice. Our knowledge respecting some of the most important moot questions as to the natural history of inherited syphilis would be much helped, if all who came across cases belonging to any of the following categories would carefully record them.

Cases in which twins, one or other, or both, suffer from inherited syphilis. They should be followed up through as long a period as possible.

Cases in which women acquire syphilis during pregnancy: with especial attention to the question of the freedom of both parents from any former taint. In these cases, it is desired to ascertain the effect upon the previously healthy fetus of syphilis acquired by the mother at different periods of pregnancy.

All exceptions, or apparent exceptions, to Colles's law (that a sucking child cannot infect the nipple of its own mother).

All instances of children born alive with indications of syphilis upon them.

All cases of pemphigus infantum, or of other syphilitic eruptions, making their appearance during the first week of life.

And now, Mr. President and gentlemen, in conclusion, I have to thank you all heartily for the kind attention with which you have listened to my lectures. I have also to express my sense of indebtedness to those, not few in number, nor deficient in repute, who have added to the value of what I have said by the comments and new facts which they have published in the journals during the last few weeks. For the most part, the letters to which I refer have given support, not unneeded and often valuable, to the opinions which I have expressed. In other cases, where the comment has been more or less critical, I desire to take this opportunity of saying that I am equally grateful and desirous of profiting, but that at the same time I shall ask to be excused from controversy. On the difficult subject of the relationship between the infecting and non-infecting sore, I observe with regret that I have failed to make my meaning clear to all. I am willing in this failure to take a share of the blame, but only a share, for really I did my best.

This is, I believe, the third or perhaps the fourth time, that your Lettsomian lecturer has taken for his topic some subject in connection with syphilis. In 1859, Mr. Victor de Méric, in 1873, Mr. Lee, and in 1874, Dr. Broadbent, dealt with subjects more or less identical with those which I have ventured to discuss. In apology for what I have felt to be almost presumption in attempting to supplement the work of such men, I must allege the boundless and perennial interest of the subject. Nor will this be the last time, I trust, by many that the study of syphilis will engage the mind of your lecturer. We are as yet but on the threshold of its investigation, and discoveries of great importance await, I doubt not, the industry of observers yet to come. If in any small degree their labours should be helped by hints thrown out in the short course of lectures which I now close, my task, which has already had its pleasure in your approval, will then have received also its abundant reward.

[At the conclusion of the lecture, which was warmly applauded, it was proposed by Mr. Wm. Adams and seconded by Dr. Stephen Mackenzie that an expression of thanks be accorded to Mr. Hutchinson for his great and original research on the interesting and difficult questions which he had treated; further, to express the wish of the society to see them published in book form. After a few congratulatory remarks by the President, the proposition was adopted unanimously.]

PRESENTATION.—Mr. Oded Lowsley, of Reading, has been presented with a clock and a pair of bronze ornaments, the former bearing the following inscription:—"This clock, together with a pair of bronze ornaments, was presented to Oded Lowsley, Esq., M.R.C.S., L.S.A., by upwards of six hundred patients and a few friends of the Reading Medical Dispensary, upon his retirement from the position of one of its medical officers, and in remembrance of his kind and skilful treatment during a period of eleven years."

OBSERVATIONS

ON

THE PRACTICAL USES OF LANOLIN.

By OSCAR LIEBREICH, MD.,

Professor of Materia Medica in the University of Berlin.

FROM my investigations of the composition of the cholesterine fats found in keratinous tissues, I conjectured that the absorption into the skin would be best in the case of those fats which have their origin in keratin-bearing substances, as hair, epidermis, etc. The old theory, that the skin was only oiled from glandular secretion, did not harmonise with my research; and lanolin, upon my suggestion, is now being tested as to its efficacy in therapeutics as a new basis for salves and ointments. It possesses such peculiar properties, also noticed by Berthelot, that it becomes a matter of necessity to give a number of formulæ, in order that the druggist may more easily compound and dispense the remedy. It is also of importance to add other ingredients to make it more pliant, as it is a too sticky mass in itself to be employed alone; and, from the many trials which I made with different substances, as vaseline, paraffine, ointment, glycerine, oils, and fat for this purpose, I found the latter by far the best, as the others generally interfered with the absorbing qualities of lanolin.

I must also state that the many substances, under the name of pure wool-fat and wool-oil, which have found their way into the trade before and since the introduction of lanolin, are injurious, as they contain free acids and various animal substances.

I shall not fail to publish, in the near future, its more exact chemical composition; but for the present I may suggest the following tests for its purity in therapeutics.

1. A small quantity, on being heated in water over a water-bath, must show the absence of glycerine.

2. If a solution of caustic soda be added, ammonia must not be developed.

3. The fat, if a small portion be heated with water on a water-bath, must separate in oily drops without producing an emulsion. If the quantity employed be large, it must separate as a clear oil.

4. With blue litmus-paper, the reaction must not be acid.

5. For examination, if it be mixed or well rubbed with water upon a ground-glass plate with an iron spatula, the result must be a product containing over 100 per cent. of water; and, if the lanolin employed be pure, the kneaded mass will be sticky and paste-like, to which the spatula readily adheres, but, if impure, the mass will have a soap-like smoothness, from which the spatula readily glides.

6. On exposure, the upper surface of lanolin and all lanolin salves and ointments becomes darkened, due to the evaporation of water, and not to its decomposition.

7. It never becomes rancid, and its smell should remind one of wool.

My experience with the remedy, with that of other physicians, has been but limited, yet I do not hesitate to pronounce the results so far obtained most promising.

The first question which presented itself was, whether the skin would bear it well. From its use, in over 400 cases, in the hospital and private practice of Dr. Lassar, the dermatologist, no irritation of the skin was ever produced, a result which my own experience, during the years in which I have been experimenting with it, confirms. For this reason alone, it is to be highly recommended for massage, for which purpose I should suggest the formula No. 11.

It is true it is not as smooth as vaseline, but it has the advantage that the skin, after being rubbed dry with a cloth, still remains soft and pliable.

In cases where the epidermis is fissured, as, for instance, in chapped hands, the following recipe may be advantageously employed: that is, No. 11.

The parts affected, particularly the hands, are to be well washed with some good soap, and then to be thoroughly rinsed with water. Upon the moist surface a small quantity of the ointment is to be well rubbed in, and the parts afterwards to be wiped with a dry towel. The skin is left soft and supple, on account of the rapid absorption and retention of the lanolin; and, what is more remarkable, the hands are not greasy, yet the water flows from them as if oiled. Accordingly, it may be especially useful for the hands of surgeons