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

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LECTURE III.

Questions concerning the Inheritance of Syphilis.—On Transmission to many Children in Succession.—The supposed connection between Syphilis and Rickets.—Ulcers of the Palate and Pharynx.—Malformation of Joints consequent on Syphilitic Periostitis in Infancy.—Ringworm of the Tongue, possibly sometimes connected with Inherited Syphilis.

Questions concerning the Inheritance of Syphilis.—The number of important questions which are still undetermined in respect to the transmission of syphilis from parent to child is very great. Indeed, it is remarkable how comparatively young almost all our knowledge on this subject is. It is not very long since it was held that contagion during parturition was the only method by which the mother could convey syphilis to her child. Next, when intra-uterine acquisition came to be admitted, there was still vehement scepticism as to whether the father could transmit. I myself well remember a debate at a sister society, in which a leading physiologist of the day ridiculed such an idea. It was held, and with a vigour of assurance which may well excite the marvel of a timid reasoner, that the mother only could convey it, and that she must necessarily have had the disease prior to the time of conception. Part of this creed, *a priori* improbable as it may seem, lingers still. Almost every one, I believe, now accepts the doctrine that a tainted father may beget tainted offspring, but some of our best authorities hold that, if a pregnant woman contracts syphilis, it is quite impossible that her disease can hurt the child in her womb. I need hardly say that the converse proposition, that, namely, of the possible ill influence of a tainted foetus upon the mother who carries it, is still a matter of dispute. We must not complain of the results of healthy scepticism, nor must we ignore the great and peculiar difficulties of the investigation. So manifold, indeed, are the latter, that we ought perhaps not to be surprised at the vigour with which every inch of progress is disputed, nor disappointed if the battles which had seemed to be won a quarter of a century ago have to be fought again.

The evidence which is available in questions relating to the inheritance of syphilis is but seldom absolutely conclusive. It is almost always circumstantial, and yields at the best only a strong probability. Our isolated facts are usually weak in themselves, and assume strength only when they are accumulated. It is the old story of the bundle of sticks which make up a faggot. Now, different minds display great differences of capability in yielding assent to conclusions based on evidence of this kind. There are those who seem capable of trusting implicitly to any single fact, or seeming fact, which has occurred under their own cognisance, and yet can reject with confidence a large body of evidence based upon the general experience of others. To my own mind, I may confess that the general tenour of facts conveys much more of conviction than does the seeming lesson of an isolated case, however clearly the latter may be stated. Many have been the occasions in which subsequent revelations have confirmed me in the creed that, when an isolated case seems to be strongly in opposition to the more general, but it is to be admitted, vague and uncertain deductions from many others, it is wise to suspend the judgment, and to feel much doubt as to the accuracy of the asserted fact.

The evidence which leads us to believe that a father can transmit syphilis quite independently of the mother, is peculiarly of the kind referred to. In any given case, it is next to impossible to prove that the mother has never suffered. When, however, we find that the history is repeated not once or twice, but hundreds of times, that a

man known to have had syphilis, marries a woman apparently healthy, and believed to have been chaste, and that, without any obvious illness in the mother, a syphilitic child is produced, we become obliged to believe that inheritance from the father is not only possible but common. If it be suggested that in these cases the mother always first receives the disease, we reply that, although it is quite possible that now and then this might occur without the primary and secondary symptoms being recognised, it is simply inconceivable that it should happen often. Primary symptoms in women are often overlooked, but secondary ones are obvious enough. Yet, in the case of syphilitic children, it is a matter of common occurrence for the mother to show no symptoms, and to assert that, from the day of her marriage to the birth of her child, she has never ailed anything. The firmness of our belief on such a point will probably depend much upon the extent of our personal experience; for, however willing we may be to accept courteously the facts offered us by others, we seldom believe with confidence, till the evidence has passed under our own eyes.

Exactly the same kind of proof of probability is offered us in respect to the influence of an infected foetus upon a previously healthy mother. I published, more than twenty years ago, a long series of cases, which, I thought, illustrated the assertion of Ramsbotham, Harvey, and others, that the foetus might infect its mother. The fallacy in them all was the obvious one that the mother might possibly have had syphilis herself. Probably a certain portion of the cases given were to be so explained. The women possibly did not give candid statements of their own ailments, or the latter had been so slight that they had not observed them. Again, however, I assert that there is a limit to an acceptance of such an explanation. When we find the same statement given by mother after mother, we become obliged to believe that it is probably true. It will be seen that we want proof of two things; first, that a woman may carry a syphilitic child without herself suffering in any obvious manner, and secondly, that, although she shows no symptoms, yet she does in reality receive a taint. Of the first I submit that the proof is abundant; of the second it is possibly less convincing. It consists in the fact that women not infrequently present tertiary symptoms who have never had primary or secondary ones, and next, that they are not susceptible of contamination by their infants. In the paper to which I have referred, I gave many instances of the occurrence of tertiary phenomena under the conditions mentioned; and I have since, on several occasions, appealed to the now well-known law of Colles, as affording proof that the mother does in this way acquire protection against syphilis, although she may never have shown a symptom. I cannot say that recent years have supplied any large number of well-marked examples of tertiary symptoms under the conditions referred to, but they have been sufficient, both as to character and to frequency, to support the conclusions at which I formerly arrived.

It remains to ask whether Colles' law stands the test of time. I certainly think that it does. Although now for many years it has been widely known, and much effort has been made to draw the attention of the profession to the very remarkable fact which it asserts, yet no well-accredited exceptions to it have been placed on record. I have most certainly myself never witnessed a single case which in any way resembled an exception. I have seen a certain number of cases, in which women contracted chancres on the nipple from the mouths of infants whom they had suckled, but in not one case of this kind was the infant which conveyed the infection the offspring of the woman who acquired the chancre. I have seen innumerable instances of mothers nursing their own syphilitic infants, and yet acquiring no disease. I therefore believe, with confidence, in Colles' law, and hold that it will, with every additional year of experience, become less and less a moot question.

About two years ago, my friend, Dr. David Lees, of the Great Ormond Street Children's Hospital, sent to me an interesting case bearing upon this point. A mother, who was suckling an infant, had a chancre on her nipple, and her child also showed symptoms of syphilis. Here, then, was an apparent exception. We found, however, on careful inquiry—and this, let me say, was the conclusion to which Dr. Lees had come independently of my investigations—that the infant was the subject of primary acquired syphilis, and not of inherited taint. Thus, so far from being an exception, it was, in some sense, a confirmatory fact. The mother had borne a healthy foetus, and had, therefore, never acquired any immunity as regards the contagion which reached her accidentally through her own infant.

It will be seen that these several statements of law are mutually connected, and give each other support. If it is true (and the proof is overwhelming) that a father can give the syphilitic virus to his child, it follows that previously healthy women will often become the bearers of contaminated embryos. That, as a rule, they do not suffer

materially or even noticeably during pregnancy, must, I think, be conceded; whilst, lastly, we have the seeming fact that they are afterwards insusceptible of contamination from their own children. To those who still, with Kassowitz and others, doubt that the fetus infects its mother, I would suggest that there is nothing in the least improbable in such an occurrence. To me, indeed, it seems exceedingly improbable that it should not do so. That with a disease so virulently contagious as syphilis is, a tainted organism should for nine months remain in such close contact as that of intra-uterine life, and yet cause no contamination, would surely be a very extraordinary fact. At the same time, I fully admit that we have no facts which would have led us *a priori* to expect that in most cases, as seems to be fact, the contamination would be effected quietly and without any obvious outbreak of secondary symptoms. This, I repeat, is an occurrence which we could not have anticipated, but we must remember that it takes place under conditions for which we have no parallels. It is not more exceptional than is the well recognised fact that, during intra-uterine life, as a rule, the fetus itself, although severely tainted, remains in perfect health. It may, perhaps, be that it is owing to this state of suppression of the vigour of the virus in the fetus, that it is possible for it to contaminate its mother without exciting any immediate indications of disease. The virus is possibly for a time in a minimised condition. A few cases occur of seeming fetal contamination in which a violent outbreak of secondaries does take place, and these are, I believe, always instances of death of the embryo and early abortion. There is usually, however, in these, room for much suspicion that the mother may possibly have had a chancre, for they almost always occur within a few months of marriage. Unquestionably, the rule is, as I have indicated above, that a woman married to a diseased husband who begets tainted children, yet remains herself free from symptoms.

I must pass on to other questions. We will next ask whether it is possible for a mother who contracts syphilis during her pregnancy to infect her fetus. As a matter of inference, I should have been inclined to reply that, if time sufficient were allowed, she must almost necessarily do so. The poison breeds with virulence in her system; how can possibly the child in her womb escape its influence? To other minds, however, the probabilities look different; and, on the assumption that the virus cannot possibly pass through the walls of the placental vessels, the suggestion that the fetus can receive contamination has been met with a vehement denial, even by good authorities. I have myself met with several cases which appeared to be very conclusive as proof of its occurrence. Many years ago, I was asked by Dr. Barnes to examine a pregnant lady who had syphilis. She was then near the end of her term. I saw her chancre, and I saw her secondary rash. They were of quite recent acquisition. In fact, her husband had gone astray because, on account of her pregnancy, she had ceased to be attractive to him. I had attended him, and was cognisant of the date of his chancre. The evidence that neither parent was suffering from syphilis at the time of the conception of the fetus is, I submit, conclusive; yet the child, which could have derived its taint from no other source than the mother's blood, suffered severely, in the ordinary manner, from infantile symptoms, and in later life had severe keratitis and other specific ailments.

As regards the influence of inheritance from one or the other parent, from the father or the mother, I will state broadly my conviction that it makes no difference; the inheritance is just as certain, and just as uncertain, in the one case as in the other. Nor have I been able to trace any difference in the severity. I shall mention incidentally a few facts supporting these general statements, but shall not attempt any detailed proof. To give it would involve much loss of time; and on such a matter it is perhaps fair to say that the *onus probandi* rests with the assessor. It has been, I believe, a widely accepted belief that, when the mother is the parent who has suffered, transmission is both more sure and more severe. Of this, from a careful examination of facts, I feel assured that there is no evidence.

Nor can I believe that the fact of both parents having suffered makes any difference in the severity of the disease in the child. Inheritance from both parents instead of one probably makes no greater difference to the child, than does vaccination on both arms instead of one only. It renders transmission more certain, but in no material degree intensifies the disease transmitted. Scarlet fever is the same malady when contracted by simultaneous infection from two persons as when from one only, and it is not probable that any different law obtains in the case of syphilis. It is impossible to intensify or to alter it. It is a specific disease, and must necessarily be complete, and cannot possibly be more than so. Contagion from one source is sufficient for the full result, contagion from more than one brings with it no aggravation. It is not improbably as absurd to think that the disease will be more severe

when the transmission is from both parents, as to suppose that the acquired disease is worse when there are two chancres. In saying this, I am not forgetful that multiplicity on the part of a primary lesion—as, for example, in vaccination—does, to some slight extent, heighten the disease.

On Cases of Transmission to Many Children in Succession.—It is but seldom that proof can be obtained of a tendency to transmit syphilis extending over many years. Usually, one, two, or perhaps three, children suffer; and then there is an end of it, and the younger ones appear to be in every respect healthy. The fact that interstitial keratitis is met with in first-born children in very disproportionate excess is well known. The explanation of this which is usually given is, of course, that the taint is in the parents a temporary thing; that they are gradually getting rid of it. The period of its duration—the length of time, in other words, during which transmission is possible—may, however, vary much; and I purpose to say a few words as to certain exceptional cases, in which children of the same parents born at long intervals yet suffered definitely from the taint. In doing this, we must first direct our attention especially to two or three questions which are still matters of debate.

1. Is there any reason to believe that, when syphilis shows itself in several children of the same family, its degree of severity is less in the younger than in the elder ones?

2. Is it usual for some children to escape entirely, when elder and younger ones suffer severely?

3. When children in the same family show very widely different degrees of severity in symptoms during infancy, can anything be predicated from that fact as to their proneness to suffer later on in life?

I will state beforehand what my impressions are on those several points, but we will still keep our minds open to any doubts which may be suggested by the critical analysis of facts. I believe, then, that there is no reason for thinking that the transmission of syphilis is ever a thing of less or more, but rather, that if a child inherits any taint, it inherits the whole malady. The very varying degrees of severity which we constantly witness, are due to causes similar to those to which we have recourse to explain the different degrees of severity which we constantly witness in the acquired disease. When scarlet fever is passing through a family, or a school, we do not expect every child to have it with equal severity, nor do we seek to explain inequality by supposing that, in the mild cases, only a half dose of the poison was received. Rather, we are content to believe that something in the pre-existing state of the different children disposed one to suffer much and another but little. Just the same in acquired syphilis. Why should we introduce a new theory to explain a parallel fact in respect to the inherited taint? It is very easy to speak of "the taint dying out," and of one child as having received a larger dose in consequence of being born nearer to its parents' acquisition; but the question is, are such expressions in accordance with probable fact? We cannot, I suspect, be too liberal in our allowance for different degrees of severity from, so to speak, accidental cause, from idiosyncrasy, or from causes which we cannot estimate.

I had once under my care, at Moorfields, a brother and sister named K. The boy was aged 15, and had been under Mr. Hulke's care for interstitial keratitis three or four years before I saw him. He had a most characteristic set of syphilitic teeth. His sister was six years younger than him, and she attended for very severe interstitial keratitis; it affected both eyes, and was, I think, much more severe than even her elder brother's had been. Her teeth, however, were much less malformed than his; in fact, there was only one in which any defect of development could be asserted. As regards physiognomy, the two children were much alike, neither of them presented very marked peculiarities. Thus, we have here proof of the taint persisting for six or seven years, and there was no reason to think that it had diminished in severity, for the younger child suffered as much as her elder brother.

The next case which I shall cite is that of a family named R. John Henry, a boy aged 9, was brought to me with recent keratitis of the left eye; it was characteristic. His teeth could scarcely be said to be suspicious. We examined his right eye for choroiditis, and could find none. An elder sister named Ruth came with him; her teeth were typical; she suffered from nystagmus, was deaf, and in her choroids were numerous patches of pigment-accumulation. Ruth was aged 12, John Henry 9, so that we have proof of the taint affecting two children with an interval of three years, and we find the younger suffering scarcely less than the elder. But I have not told you all; there was a long family-history at which we must glance; and when we have done so, I think we shall see reason to believe that Ruth was herself born ten years or more after her parents acquired the taint. I may tell you that I saw their father, an intelligent

candid man, who gave me all the help he could. He did not admit having had any fresh syphilis since marriage.

Mr. and Mrs. R. were married in 1854, she being then 18, and he 23. Their eldest child was born within the year, and is now living (aged 31). This child had an eruption in early infancy, and was very ill. He survived, however, and there is no proof that he has suffered anything since. In 1857, a girl was born dead at full time; in 1858, were born twins, one dead, and one destined to die on the third day; in 1859, a boy, who lived only three weeks; and in 1860, 1861, 1862, and 1863 in each year, a child, none of them living more than six months. After these comes Ruth, whose case I have mentioned; she was born in 1864. Between her and John Henry two were born, both of whom died. John Henry, as we have seen, suffers rather severely. After him came, in 1869, a boy who died of scarlet fever at the age of 4, having been quite healthy. Thus out of thirteen children, three only are living.

The following is a yet more remarkable narrative in proof that a younger child may suffer most. The elder one appeared, indeed, to escape entirely; but as it died young, we cannot feel sure that nothing would have followed.

Case in which the First-Born Child of a Mother who had Suffered from Syphilis Escaped any Evidence of Taint in Infancy, whilst the Second Suffered Severely.—Some years ago I saw, with Mr. Cooper, of Bow, a very interesting case of heredito-syphilis. Our patient was a male infant, aged three months, born quite healthy-looking, but now covered with a syphilitic rash, and much emaciated. Both parents appeared healthy. They had been married nearly three years. Before marriage the mother had contracted a sore on her lip from kissing a brother who had syphilis. This sore was recognised by her medical attendants as a chancre; it was followed by a rash, and she was treated for syphilis by mercury. The gentleman, now her husband, was then engaged to her. He was made acquainted with the facts, and declined to allow the occurrence to affect their relations. About a year after the syphilis they were married, the young lady having then for six months been apparently in perfect health. A year after marriage the first child, a girl, was born. She remained quite free from symptoms, and seemingly in excellent health, until at six months she was carried off by a short attack of whooping-cough. Mr. Cooper confirmed to me the parents' statement that this child never showed any indications of syphilitic taint. During the whole of her married life the mother had remained free from symptoms, and she appeared to be quite well at the time that I was consulted about her second child. The father had never had syphilis, either before marriage or afterwards.

We seem to have here a case in proof that a mother, in whom the taint has been wholly latent for three years, may bear a child destined to suffer severely in the usual manner, and at the usual age. It is also proved that a first-born child may escape (so far as infancy is concerned) the effects of a maternal taint, from which a younger one may yet suffer severely.

It is a matter for interesting speculation whether the sex of the infant has any influence on its liability to suffer. The one which apparently escaped was a girl, the one who suffered was a boy; the taint was a maternal one only. I call attention to this fact, but without suggesting that it has any importance. I have in vain attempted to find any law or rule in reference to difference of severity of incidence of inherited syphilis in the two sexes. That a majority of those who suffer from iritis in infancy, and from keratitis when adolescent, are girls, seems, so far as present statistics go, to be established.

Inherited Syphilis in Two Sisters, the Younger suffering the most severely.—In 1861, a man brought to Moorfields two girls, his daughters, both of whom suffered from interstitial keratitis. In both the inflammation of the cornea was just beginning, yet the elder was three years (12) older than her sister (9). The younger, in whom it was beginning earlier, appeared to suffer more severely throughout. Her physiognomy and teeth were characteristic, whilst her elder sister showed very slight peculiarities of physiognomy, and had perfect teeth.

I cite this as a very important item of evidence in proof of the unequal severity of inherited syphilis, quite independently of the period which has elapsed since the disease in the parents. It was unquestionable that both had suffered, yet the elder one had apparently almost escaped the symptoms common in the infantile period. The case is also of interest as showing how almost wholly latent the taint may be up to the time of the outbreak of keratitis. Had the sisters been in reversed positions, that is, had the younger one suffered as slightly as did the elder, the case would have seemed very strong in support of the creed that the taint is minimised by time.

The Supposed Connection between Rickets and Syphilis.—The

dependence or otherwise of the bone-affections usually known as rickets upon an inherited taint of syphilis, is one which has been much discussed during the last ten years. The late M. Parrot ventured on the bold heresy that all rickets is due to syphilis, and in the course of his investigations he made known to us some very important matters of pathological fact. He had been to a large extent preceded by Wegner, of Berlin, and by Taylor, of New York, and he has since been admirably supplemented amongst ourselves by the investigations of Dr. Barlow and Dr. David Lees. I cannot now venture on more than a very brief summary of the facts which have been elicited. It is now quite certain that, during the secondary stage of syphilis in infants, that is, from the first to the sixth month, or longer, bone-affections are very apt to occur, and that they are attended by extensive deposits of new porous bone, constituting what have been called bosses, on the skull. The long bones also suffer, but more rarely, and they are affected chiefly near to their epiphyses. Suppuration may, in rare cases, occur. These nodes are at this stage always multiple, and usually symmetrical. They disappear under specific treatment, and do not usually recur until some years later. As childhood advances; for example, from the age of five to ten years, or more, bone-affections of another class are common. The shafts of the long bones now chiefly suffer, and the skull but seldom. Suppuration is very uncommon, and sclerosis, or the production of large osseous nodes, is common. Sometimes the nodes are large enough to simulate new growths. Now, at both stages, syphilitic bone-affections may be and often are mistaken for rickets. Many years ago I called attention to the fact that children with chronic periostitis, producing alterations in the form of the tibia and overgrowth, found their way to the orthopaedic hospitals, and were liberally treated by splints. These cases are, however, far less common than those in which, in early infancy, it is difficult to tell whether the child has syphilis, or rickets, or both. The simultaneous occurrence of the two is very common, and hence the difficulties which investigators have found in coming to clear opinions as to the relationship between them. We may, however, I think, believe with confidence that there is a pure rickets dependent upon dietetic causes, which has nothing whatever to do with syphilis. It may easily be the fact that the existence of the rachitic state in an infant who has also an inherited taint of syphilis may give a decided tendency to bone-disease, and more especially to affections near the epiphyses. The local pathological product may also be a mixed one, and partake of the combined influence of the two causes. There is no reason why the two causes should not mix.

Ulcers of the Palate and Pharynx.—The question as to whether deep ulcerations of the palate and pharynx, when met with in young persons, are usually due to syphilis or to scrofula is one of great interest. I long ago ventured to record, as the result of some observation, my conclusion that it was rare in these cases to meet with syphilitic teeth; and I felt obliged, in not a few cases of this kind, to leave the diagnosis uncertain. As the result of further observations, I may now say that, year by year, the balance of evidence has more and more inclined towards the creed that such lesions are almost always syphilitic.

We admitted into the London Hospital a lad who had a perforating ulcer of his soft palate, almost phagedenic. He was cured by canterisation of the ulcer. The most careful examination of the lad himself and of his family history failed to elicit a single fact supporting the suspicion of inherited taint. His teeth were of good form; his physiognomy was good; he had not suffered from either choroiditis or keratitis. So the case stood. A year later, this same patient came to me at Moorfields for his eyes, and passed through a characteristic attack of interstitial keratitis. Of late years, I have seen no case of deep ulceration in the throat in a young person without being able to make the diagnosis of inherited syphilis probable.

Some years ago, Dr. Wilks was kind enough to lend me, from his private library, a most interesting religious tract, which bears upon this subject. It was an autobiography, printed before I was born, which contained an excellent portrait of the heredito-syphilitic physiognomy. It is entitled, "The Conversion and subsequent History of Benjamin Lawson, an Afflicted Youth, deprived of his Speech by Scrofula; on account of which he was for nine weeks an indoor patient in King's Ward, St. Thomas's Hospital, in the year 1815." The portrait prefixed showed the bridge of the nose sunk level with the cheeks, and the forehead large, with prominent frontal eminences. The subject of the autobiography records that he was born in 1793, in Coppegate, York, "of poor but honest parents." At the age of 12, he began to suffer from a very bad sore-throat, and subsequently had a discharge from his nose; at the age of 16, a loose piece of bone came out of his nose; at this time, he was very feeble, but still worked as a fly-boy in a printing office.

After this, bone continued occasionally to come away, and he was Mr. Cline's patient at St. Thomas's Hospital in 1815.

He recovered from a condition which appears to have been thought almost hopeless, and lived ten years longer. The precise cause of his death is not recorded; he mentions, however, a fact which corroborates the diagnosis of syphilis. Whilst he was in the hospital, his father had a bad throat; it had been bad three months, and still kept getting worse, so that he could scarcely eat.

"A kind female friend, Mrs. G., who called to see me, got my father visited by the Methodist Society for relieving and communicating religious knowledge to the poor. The kind friend who came last to visit my father was a medical gentleman, who, on looking at my father's throat, told him, if he did not get into some hospital, he might soon be a dead man; he might get cured then, but he was dying for the use of means." He "got a letter for Middlesex Hospital;" and, when "he had been there but a week, he appeared much better. I was afraid to take anything solid, for fear it should stick in the hole in my palate and choke me; which, by the long progress of the disease, was as large as a shilling, directly over the throat; and, by the frequent loss of pieces of bone, occasioned such a vacancy that, if anything lodged there, it nearly caused suffocation, and almost choked me till I got it away. I got so hungry, I was afraid I should be starved to death; for, though the thick milk was very nourishing, yet I always felt hungry after it."

This narrative is, I think, valuable as evidence in favour of the syphilitic nature of disease of the bones of the palate and nose, such as are frequently called strumous.

Permit me to mention one or two other cases illustrating the same point. A young man from S., aged 19, presented a good instance of destruction of the palate and nasal bones by congenital syphilis. His nasal chambers were one cavity, every trace of the vomer and turbinated bones having disappeared. The uvula and adjacent parts of the soft palate had been destroyed. His nose had fallen down considerably, and the right ala had been in part destroyed. In 1885, six years after the beginning, all the parts were soundly healed, and there appeared no fear of a relapse. His teeth were good, and his physiognomy showed but little peculiarity. No projections on the frontal eminences were recognisable by the eye, but to the finger they were distinctly so. There was a considerable osseous node on one tibia.

It will be seen that in this case, although the destruction within the nose was so extensive, there was but little else by which to recognise the diathesis. It might easily have been a case in which all hereditary taint might have been deemed to be absent. The node of the tibia alone revealed the taint, and it by no means decided the question as to whether we had to deal with inherited or with acquired disease. When I add that the boy was the youngest of his family, and that all his brothers and sisters were quite healthy, it will be seen yet more clearly how near we might have been to a mistaken conclusion. The final evidence was given by the family surgeon, who was cognisant of the fact that his parents had both had syphilis shortly before his birth, and that his mother still suffered. Such a case ought, I think, to be allowed very considerable weight whenever, in the absence of history or of corroborative lesions, we may be tempted to say that destruction of the nasal bones or ulceration of the palate is of strumous origin.

A year or two after I saw this patient, his mother consulted me. She was the subject of locomotor ataxy, and had suffered, twenty years ago, severely from syphilis. Since ataxy is of comparative rarity in women, it is of interest to note this fact as to antecedent history.

Malformation of Joints Consequent upon Syphilitic Periostitis in Infancy.—Singular and very deceptive malformations of joints are sometimes produced by the irregular overgrowth of long bones in congenital syphilis. They are sometimes helped by alterations in the epiphyseal extremities, due to the same cause. Many years ago, I had under my care, in the London Hospital, a girl aged about 6, who had large nodes on both her femora, and was unquestionably the subject of inherited syphilis. The forms of her elbows were altered in such a way that the end of the radius was displaced upwards in the external condyle, and simulated a partial dislocation. We were doubtful whether or not it was a congenital condition, but I was more inclined to refer it to influences mentioned, and to think that the radius was overgrown. Some facts subsequently supplied to me by Mr. W. E. Hacon, of Upper Holloway, gave support to this opinion. Mr. Hacon's patient was a girl aged 14, the subject of specific disease, who had formerly suffered from keratitis and multiple nodes. One elbow looked exactly as if the radius were dislocated forwards, "but, on more careful examination, it was certain there was no dislocation, and that the deformity was owing to flattening of the external condyle."

There was such alteration in form of the lower epiphysis that, in measuring across the back of the joint, from one condyle to the other, there was the difference of nearly an inch in favour of the affected side. Thus the external condyle projected much more than the internal one (contrary, of course, to what is normal).

Mr. Hacon told me he had seen two somewhat similar cases. The deformity is probably due to overgrowth of some parts of the epiphysis itself, just as we get overgrowth of long bones, under similar circumstances, as the result of lasting syphilitic inflammation.

Periostitis in Infancy: Arrested Growth of Radius.—Mr. and Mrs. C. suffered from syphilis together, and rather severely. Both were treated with mercury, but I believe not for long. An infant born in May 1880, died. The second, born in 1881, was brought to me when fourteen weeks old. She had bad snuffles, and was covered with a dusky papular eruption. These symptoms had begun at six weeks old; she had also swelling and pain about the left wrist, and it is on account of this symptom that I mention the case. Six or eight months later, I saw the child again. She was a very small child, but had got rid of all symptoms excepting enlargement of the lower end of the radius, which was still considerable. It appeared that the growth of the radius had been arrested, for the overgrowth of the ulna was pushing the carpus over to the radial side. I was told that there had been nodes on the skull, but they had now disappeared.

Ringworm of the Tongue possibly sometimes in connection with Inherited Syphilis.—A few words must be said as to the possible dependence of what has been called ringworm of the tongue upon inherited taint. It is well known that affections of this organ at later stages are exceedingly rare in connection with inheritance, whilst they are very common in the acquired form. I have placed on the table some wax casts, which were given me by M. Parrot, showing this affection in young children the subjects of taint. M. Parrot taught that this so-called ringworm of the tongue was usually a symptom of congenital syphilis. Although I have seen several marked examples of it in which there was no reason whatever to suspect such a cause, I have also seen others in which that diagnosis was probably correct. An infant (George R.), aged 8 months, was sent to me by a surgeon in Scarborough. All history of syphilis in the parents was denied, but two very suspicious conditions were present together. They were wandering semicircular patches on the tongue, and periostitis of the lower part of the humerus. There was much swelling and tenderness of the affected bone; dislocation of the radius had been diagnosed. Under iodide of potassium, the periostitis entirely subsided, but the elbow was left somewhat stiff. The tongue also recovered.

In another case of ringworm of the tongue, in a young child, I had myself treated the father for syphilis within a few years. The child, however, appeared to be in excellent health, and had never shown any suspicious symptoms excepting the tongue.

We may probably conclude that this form of superficial glossitis is in some cases of syphilitic origin, but in the majority not so. It is exceedingly difficult to diagnose between the two.

[To be continued.]

HYPERTROPHY OF THE BREAST.—Dr. Speth, of Munich, has described, in a recent number of the *Munch. Aerztlich. Intell. Blatt*, an instructive case of this disease, under the care of Professor Helferich. The patient was subject to a steady hypertrophy of the right breast during every pregnancy; after labour, the enlargement remained stationary for about six days, and then decreased, but the breast never returned to its natural size. The enlargement was accompanied by severe pain. She was 26 years old, and had been five times pregnant in the space of five years and a few months. The weight of the breast towards the end of the fifth pregnancy was about twenty pounds, and its greatest circumference over twenty-five inches. It hung down to the anterior superior spine of the ilium. In its substance, six large tough glandular lobules could be detected. It secreted no milk, though the left breast was in perfect order during lactation. Dr. Speth considers that pure hypertrophy of the breast is exceedingly rare, most alleged cases being instances of hypertrophy accompanying fibroma or sarcoma; indeed, he declares that an indisputable case is unknown. Even the hypertrophy itself appears to be invariably associated with chronic inflammation and serous infiltration. The interstitial connective tissue is greatly increased, and, at the end of labour, it begins to contract, so as to cause atrophy of the glandular substance. No treatment, excepting amputation, is of any avail; Professor Helferich's patient refused to undergo that operation. On the other hand, the only danger to which a patient with this affection is exposed, is the chance of very acute inflammation after labour.