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COLLECTIVE INVESTIGATION COMMITTEE.

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MEMORANDUM ON INHERITED AND ACQUIRED SYPHILIS.

By C. MACNAMARA, F.R.C.S., and THOMAS BARLOW, M.D.
(ON BEHALF OF THE COLLECTIVE INVESTIGATION COMMITTEE).

THE present inquiry (suggested by the valuable investigations of Mr. C. Palmer, of Great Yarmouth), is concerned with the effects of syphilis on the civil population of this country. An answer to the fundamental question of the extent of prevalence of the disease in different parts of the United Kingdom is, for many reasons, a very difficult thing to arrive at except in general terms. The Committee, in preparing a list of questions, have asked, as the final one, for an opinion as to the relative frequency of the disease in any given district; but they are aware that the answers to this question must necessarily be vague and difficult to summarise statistically. They believe that, if a number of practitioners in different parts of the country will take the pains to fill up a few details of all the cases of syphilis in their respective circles of practice, a definite start will be made, and that in this way, at all events, the relative prevalence of the disease in different parts will not be over-estimated. Mr. Palmer has truly pointed out that a very large amount of acquired syphilis escapes observation and proper medical treatment in the early stage, and that a careful investigation of cases of **Hereditary Syphilis** gives evidence of a much larger amount of the acquired disease than would otherwise have been suspected. The Committee, therefore, attach great importance to the form No. Va, which refers to inherited syphilis; and upon this, in the first place, a few explanatory observations are offered.

In this, as in all the other forms issued, the replies are as far as possible to be made by allowing those words to remain which denote the symptoms present in any given case, and crossing out the words which denote symptoms not present in that case. But more space is left for the observer to fill in explanatory detail than has been allowed in the other forms already issued.

The syphilitic children who will be available for the purpose of investigation will be either (A) infants first noted when about six weeks of age, and subsequently kept several months—two years, if possible, under observation; or (B) children who have cut the permanent upper median incisors. The form No. VA can be used for either of these.

As to the infant of six weeks old, there can be little difficulty in recognising the disease when the signs are definite; but it is certain that many children, marasmic from bad feeding and neglect, are labelled syphilitic, in whom the proof of syphilis is wanting.

With respect to general nutrition, it has been pointed out that occasionally syphilitic infants, so far from being like "little old men," may be very well nourished indeed. The term "earthy colour," which is used in the form, refers, not to the colour of the rash, but to the complexion; it is often most noteworthy after the rash has disappeared, and may, indeed, continue for several months. The symptom of hoarseness is quite as important as that of snuffles, as in syphilitic children it often alters the character of the cry for a long period. With regard to eruptions, a minute description of their character is not needed, but a note as to their situation is of some

importance ; for it will be conceded that squamous skin-lesions about the mouth and chin, and on the trunk, legs, and soles, are often of more value than those on the nates, where the results of fæcal and urinary irritation may closely simulate syphilides.

It has been noted in a goodly number of cases that syphilitic children have undergone vaccination badly. In some, for instance, the conditions after the VACCINATION have been abnormal. The vaccine sore has been apt to ulcerate, and has been long in healing. It is desirable to note, therefore, in all syphilitic children, the results of vaccination. It may be here pointed out that true vaccino-syphilis —that is syphilis produced by vaccination—is such a definite thing, that it is difficult to find any excuse for some of the vague general assertions which have been made on the subject. From Mr. Hutchinson's investigations on the subject, it is clear that no case of alleged vaccino syphilis can be accepted as such, unless there be a distinct interval of a month to six weeks between the making the vaccination-puncture and the development of a definite hard chancre on the site of the cicatrix, which has been left after the healing of the proper vaccination-sore.

It has been noted more than once that vaccination of an infant at three months old, has been followed by a true congenital syphilitic rash ; but on careful investigation it has been found that the child belonged to an unquestionably syphilitic family ; and the study of family groups often establish cases of delayed specific manifestations. It would be obviously unfair to cite such a case as one of vaccino syphilis ; but it is important that it should be noted.

The symptom, " SWELLING OF LONG BONES NEAR THEIR ENDS," needs a special note, because it is necessary to distinguish it from the common rickety swelling of the epiphyses, with which all are familiar.

A typical case may be given as follows:—A syphilitic child, about the time of the subsidence of the rash, has been noticed to cry a very little when the wrist or elbow, on one or both sides, has been washed, and not to use the said wrist or elbow as much as the corresponding one. The symptoms may be so slight, that the medical man's attention is not drawn to it by the mother. Sometimes, however, the droop is so marked, as to raise the suspicion of nervous disease, and such cases have been mistaken by very good observers for infantile paralysis. But as there is no wasting, and no alteration of reaction to faradism, the term " pseudo paralysis " has been properly applied to the condition.

The part is not hot, and only very slightly tender on examination. There may be a very little swelling just above the junction of the epiphysis of the radius with its shaft. But the drooping is a more characteristic symptom than the swelling.

In a week's time a similar description will apply to the corresponding end of the bone of the opposite side, whilst the swelling and partial loss of power are lessening in the part first affected. Within a fortnight or three weeks, possibly the ends of all the long bones may be affected more or less; but, the affection is found most commonly in the neighbourhood of the wrists, the elbows, the shoulders, and the knees. The amount of swelling may be almost nil, although the powerlessness is definite. Rarely suppuration occurs, which may extend into the joint. Occasionally partial dislocation of the epiphysis from the shaft ensues, with subsequent welding of the epiphysis with some displacement to the shaft, slightly altered from its proper relation. The commonest event of all, so far as can be determined clinically, is for complete recovery to take place spontaneously within about a month.

The changes giving rise to these symptoms, are chiefly endosteal at the junction of the shaft with the epiphysis. But there is also a varying amount of inflammation of the periosteum or the perichondrium present which gives rise to the slight swelling which may extend up the shaft for several inches. There may be periosteal thickening on the middle of the shafts, but this is rare in the infant period.

ENLARGEMENT OF THE LIVER, although it ought to be noted, because it is often present in congenital syphilis, has but little value as a confirmatory symptom: first, because the liver is proportionally large in infancy, and it is difficult to state the limit of what is actually normal; and, secondly, because other causes besides congenital syphilis lead to its enlargement. With regard to ENLARGEMENT OF THE SPLEEN, the case is different. Dr. Gee's observation, that, in the early stage of infantile syphilis, some enlargement of the spleen occurs in a large number of cases, has been abundantly confirmed. Although, with the subsidence of the other symptoms, this enlargement often disappears, so that on *post mortem* examination, two or three months after, there may be no trace of it; yet in a few cases it persists, and indeed sometimes increases, so as to be considerable when the other signs have quite vanished. The importance of this sign is greatest when noted early, as, for example, when the child is from two to three months old, for at that period the enlargement of the spleen, due to rickets, can hardly come into question.

The term NATIFORM SKULL, as used by M. Parrot, needs some explanation. If a number of syphilitic infants be carefully watched in regard to the shape of the skull up to the age of twelve months, it will be found that in some of them lenticular swellings on the bone appear nearly symmetrically around the anterior fontanelle, but at a short distance from it; that is to say, one on each frontal, and one on each parietal bone, which may be described as bossed. These swellings are at first tolerably circumscribed, and often measure, in a child nine or ten months old, an inch in diameter. More or less circular at first, they tend to become diffused and massive, and ultimately organise, giving rise to a more or less thickened skull. It is unquestionable that many of the children presenting such cranial swellings are rickety; it is equally true that these bosses may be found in syphilitic children presenting no signs of rickets. It is very important that the significance of the sign should be worked out.

B. In considering the cases of syphilitic children who first come under observation after the second dentition, it is exceedingly important to have the confirmatory details accurately stated.

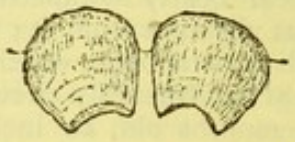
With respect to the PROMINENT FOREHEAD which is enumerated as one of the signs, it would, of course, be absurd to maintain that every large head belongs to a syphilitic child. Many rickety children have broad square foreheads. But the prominence here referred to is near the middle line, in fact, at and within the frontal eminences. It was insisted upon by Mr. Hutchinson many years ago, and is probably the result of the diffuse extension and organisation of the bossed condition of the frontal bones above mentioned.

Mr. Hutchinson's observations on the characteristic INTERSTITIAL INFLAMMATION OF THE CORNEA in congenital syphilis are now well known and generally accepted. It is essential to distinguish between scrofulous ulceration and this characteristic syphilitic disease. The latter is usually symmetrical, and attended by a diffuse ground-glass condition, resulting in general haze and opacity, but throughout wholly free from pustules or ulcers. Very rarely, however, it is attended by peculiar crescentic patches of congestion, the so called "salmon-tinted patch."

It is important to bear in mind the late period at which this form of disease may first appear; as late even as the age of thirty-five years. Also it may be here mentioned that, although the heading of the second division of this form is B., child (after second dentition) age —, adult cases of inherited syphilis may, without violence to the scope of the inquiry, be included under it. The deep affections of the eye have not been referred to in the form, but the committee will be exceedingly glad to have notes appended as to the presence of *choroiditis disseminata* in one or both eyes, which is almost as valuable a confirmatory detail as the special corneal affection. Notes of any nervous affections which have been observed may also be appended.

With regard to scars round the mouth, it is worth noting that they are of most value when narrow cicatricial lines extend right across the mucous membrane of the lips, especially if there be a radiating series of them. Occasionally careful observation will establish a network of linear cicatrices on the upper lip and round the nostrils as well as at the corners of the mouth and on the lower lip; and when present, this is quite pathognomonic.

The CHARACTERS OF THE TEETH are so valuable when present, that it is important to have them carefully noted; the more so that, in spite of Mr. Hutchinson's clear description, they have been much misrepresented. It may be pointed out—1. That only the upper median permanent incisors are characteristic, and sometimes only one of them is typical of the disease; 2. That these teeth are generally a little apart, instead of being in apposition, and are more or less dwarfed; 3. That, in a typical specimen, the width of the cutting edge is narrower than the width of the tooth as it emerges from the gum; 4. That a typical syphilitic tooth presents a single notch, not a serrated margin; and that occasionally, if the notch has not been actually scooped out, there is a little lunula-shaped area, as shown in the left-hand drawing, which, it is easy to see, may readily become a notch; 5. Finally, that, although such teeth, when present, are absolutely pathognomonic, the existence of normal permanent upper median incisors by no means excludes the existence of hereditary syphilis.



The DEAFNESS of inherited syphilis is often only slight and temporary; but in many cases it is permanent and almost absolute. It is almost invariably symmetrical, and is, for the most part, unattended by pain or other subjective symptoms.

With regard to the PERIOSTITIS of long bones in inherited syphilis, it is worth notice that, as compared with the acquired form, it is often much more extensive, is associated with more hyperplasia of bone, and is very much less painful.

Stature and weight are asked for, because it would appear that occasionally a decided stunting in general growth occurs.

It will be found that the history of infantile syphilitic symptoms of the B group is often imperfect and unsatisfactory.

The headings which follow—viz., present and past evidences of syphilis in the father and mother—apply, of course, to either A or B. The remaining inquiries need no further remark.

No. V deals with cases of **Acquired Syphilis.** The most valuable cases are, of course, those coming under observation *ab initio*. Here the first difficulty that arises is as to the nature of the chancre. About some primary sores, the observer can have no question whatever; but as to the interpretation of others, most practitioners will admit that

they have occasionally been at fault, as proved by the sequel. It is proposed, therefore, that a form No. V be commenced for every case of chancre coming under treatment, and the words "hard", "soft", and "doubtful" will include those which are equivocal in their characters at the time of first observation, as well as those which are definite. The observation for each case should extend, if possible, over two years at least ; and it is recommended that it should be sent in, however few be the number of observations made as to the subsequent progress of each case.

The AFFECTIONS OF SKIN AND MUCOUS MEMBRANES, which form the first two categories, are understood to apply exclusively to the early secondary symptoms attacking those tissues. Although, of course, these lesions are generally only superficial, a record of any deep lesion occurring at this period is of great interest. The earliest period at which iritis may occur is also important. The periostitis, about which information is asked in the next line, is the early form, which is sometimes widely distributed, though giving rise to little local swelling and generally transient. It is very desirable that the distribution and character of the ulcerative lesions which may appear late in the secondary stage should be carefully given. Recent investigations tend to show that gummata may occur much earlier in the progress of syphilis than had been supposed. We have no data as to the earliest period in which they are to be found in the viscera ; but in certain cases a temporary (? general) enlargement of both liver and spleen have been observed in the secondary stage. Functional disturbances of the chest or abdomen, however slight in the secondary stage, are worth recording, with dates, under the head of visceral affections ; and here also may be inserted a note of the early affection of the testes.

Affections of the nervous system in the early stages of acquired syphilis are probably not uncommon, but much information is needed, for example, on the date of the earliest occurrence of severe headache, mental disturbance, and deafness, all of which may completely pass away. Pathological study of syphilitic brain-disease, more especially that depending on specific lesions of the arteries, shows that, although a very wide range of time must be allowed, yet arterial disease may start very early indeed, perhaps even within the first two years, but certainly within the first three years after infection, and sometimes in spite of very thorough early treatment. It would, therefore, be of very great value to get records of hemiplegic attacks and unilateral fits in young adults whose syphilitic history has been carefully followed *ab initio*. The earliest date of occurrence, and the duration of localised paralyses, such as ptosis, paralysis of the sixth nerve, etc., also merit record.

The rigid definition of tertiary symptoms in our present attitude with regard to syphilis is almost impossible. But, for this inquiry, they may be roughly considered as those which appear after a definite interval of health has occurred, and which correspond with lesions for the most part non-symmetrical.

As the present inquiry is to extend over two years only, it may be said that the difficulty of enumerating tertiary symptoms will scarcely arise with those cases which are taken *ab initio ;* and, with regard to other cases, if the characters and situation of any lesion be given, it matters little whether the terms secondary or tertiary be employed. The remaining inquiries on treatment, etc., require no comment.

Nov. 22nd, 1882.