SOME FORMS OF OSTEITIS IN HEREDITARY SYPHILIS.

Read in the Section of Pathology.

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It is not a little singular that, while attention has been largely attracted of late to the lesions of the osseous system in connection with hereditary syphilis which occur in infants, others that make their first appearance during childhood and early adult life, no less distinctive in their character, should have almost entirely escaped observation. So far as I have been able to ascertain, the pathological changes affecting the bones described by Waldeyer and Köbner, Wegner and Parrot, are restricted almost entirely to the first few months of life; for, though it is true the last named mentions in his paper that one of the varieties of osteitis described may occur at all ages, the context leads almost inevitably to the inference that the earlier years only are meant; while the brief account of the later phenomena of hereditary syphilis, given by other writers, with the exception of Mr. Hutchinson, scarcely alludes to them, and even he gives no detailed description, but confines himself to a statement of their common occurrence, and of the great frequency with which they are mistaken for rickets.

The cases that have fallen under my notice may, roughly speaking, be divided into three classes, fairly distinct from each other, and of which the two I shall mention last (with which I am principally concerned) are unquestionably the result of hereditary disease. The first, and, so far as my experience has gone, by far the most rare, consists of those peculiar cases of stunted or arrested growth which are more commonly met with in infirmaries than in hospitals, and which may or may not be associated with defective mental development. In the majority of these that I have seen, there has been other undoubted evidence of hereditary syphilis, and the inference is only too easily drawn that the real condition with which one has to deal is, if not identical with, at least closely similar to, that form of chondrosteitis at the epiphysal line, leading to premature ossification, such as has been described both in syphilis and in rickets; but the examples which I have met have been too few, and have remained under my observation too short a time to allow me, either by tracing their own life-history, or by investigating the condition of other members of their family, to arrive at the definite conclusion that the only possible cause underlying this pathological condition was inherited syphilis, or even if it were, that the actual outbreak took place after the age of infancy, and so could properly be said to belong to the later manifestations.

Gummata, on the other hand, in no essential respect, either of appearance or of consequences, differing from the gummata in connection with bone so frequently met with in tertiary acquired syphilis, are common enough, and bear with them the unmistakable stamp of their origin. They may affect any of the bones, though perhaps, as Mr. Hutchinson has pointed out, they are more often met with, relatively speaking, on the bones of the upper extremity, when due to hereditary, than when caused by acquired disease; and as in this form may have their first commencement in the neighbourhood of the bone on which they may encroach later, or may begin in the periosteum, or the substance of the bone itself. Not unfrequently, as was first observed by the same authority, there is a complete absence of the more ordinary signs of inherited syphilis, but even then the evidence of their nature, as shown by the course they pursue and the effect of treatment on them, is sufficient to remove all doubt, even if, as happened in a remarkable case under my own observation, in which there was to all appearance no other sign, a longer observation of the case does not at length bring to light some of the more commonly recognised symptoms.

It is the third class of cases to which I would particularly desire to call attention, not merely from the fact that they are so common that within the last few months I have accumulated notes of upwards of thirty, but because I believe the appearance which they present, and which is most characteristic, is as clear evidence of hereditary syphilis as notched teeth or interstitial keratitis. The change consists essentially in a form of osteitis, generally very chronic, affecting the tibia and, rarely, some other of the long bones, but never, so far as I have seen, without the tibia being involved, causing a deformity so peculiar in shape as to be quite unmistakable. Usually one part only of the bone is affected, either the upper or the lower third, or the shaft by itself, without the line of separation between the epiphysis and the shaft being in the least concerned, and

the enlargement takes place in all directions, a portion of the tibia projecting with a smooth even curve forwards, bulging out on either side, so that the crest no longer stands out sharply and encroaching on the muscles behind, as if it had grown in all dimensions, and from being unable to accommodate itself had been forced out on all sides, but especially towards the anterior surface where resistance is least. Occasionally, especially when the lower end is involved, and there is still a growing line between the shaft and the epiphysis, actual increase in length does take place, causing some distortion of the foot and proportionate inconvenience. This form of hyperostosis may commence when the patient is eight years old, but is much more common a few years later, and may make its first appearance as late as two and twenty. When it occurs early, it generally affects both legs, and is often put down to accidental causes; when it commences later, usually only one; and there is this further difference between them, that while in the former case the change appears to be limited almost entirely to the bones, and to occasion no greater inconvenience than chronic bone-pain, worse at night, and constant sensation of weight, in the latter the skin and the subcutaneous tissue become affected after a time, a number apparently of small imperfectly circumscribed gummata forming all over the affected limb, leaving behind them either depressed cicatrices or ulcers with often the bone exposed, hard and dense, at their bases. In one peculiarly severe case that I saw, where the mischief first broke out when the boy was eighteen years old, suddenly, at the age of twenty-two, when the upper part of the tibia had become fairly sound though much distorted, a large gumma, apparently involving the whole of the lower end, made its appearance, rapidly eating through the skin, and threatening the integrity of the ankle-joint, which, as very commonly happens when this or any other inflammation occurs in the neighbourhood, was already full of fluid.

Every case which I recorded showed other and unmistakable signs of inherited syphilis: often the teeth presented the characteristic notch, but, in a singularly large proportion, they were of the very small, ill-formed, and widely separated type. One boy had never cut his permanent upper incisors at all, the germs, to all appearance, having been destroyed in infancy, and all his others were exceedingly stunted; both his tibiae were deformed; he suffered from very severe interstitial keratitis; and, whether arising from early chondrosteitis or not, he was exceedingly short and ill-developed. Where it was possible, the family-history was noted; but it was taken for granted, in its absence, that the presence of gummata, healing rapidly on the ordinary treatment, or of interstitial keratitis, or of the characteristic teeth, was sufficiently conclusive evidence as to the taint.

With regard to the treatment of these cases, there is very little to be said. The gummata seem to yield to ordinary antisiphilitic remedies, as easily in the hereditary as in the acquired form; this peculiar form of hyperostosis is, however, far more intractable. If seen in its earliest stage, in one of the younger subjects, large and long-continued doses of iodide of potassium seemed to hold it in check, and even to cause some improvement; but there appears to be a very strong tendency, especially in the asymmetrical forms, to relapses or to fresh attacks, so that at last the leg becomes distorted and deformed, like an old tree-trunk. Local applications of all kinds were tried, but without any conspicuous success, the only possible exception being in favour of a very strong iodide of potassium ointment. Iodine itself, either internally or externally, seemed to have no influence at all; and the two cases that were treated with cod-liver oil and tonics alone were the most conspicuous in their tendency to relapse.

SMALL-POX AND VACCINATION STATISTICS: INJURIES TO HEALTH, AND DEATHS, ATTRIBUTED TO VACCINATION.

Read in the Section of Public Medicine.

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THE object of this paper is not so much to make a display of facts and figures, but to ask for more general support of the medical profession in conducting an inquiry into vaccination in which I am engaged. The *Transactions of the Vaccination Inquiry*, Part I, now before you, will give you an idea of its scope; and a perusal will at once convince an inquiring and impartial mind that such collective investigations into the subject are of vital importance, inasmuch as the facts observed by members of the profession form a complete record for reference on the subject; the abuses and failures in its

practice are exposed, criticised, and avoided; and the public could have access to the accumulated experience of the medical profession to guide them in legislation, and judge of its merits. It is needless for me here to enter into any plea of justification of such an inquiry, knowing well that those in authority consider vaccination a necessity, and enforce it by law; and that they admit that the present system has many faults in its working, as is evinced in the evidence given before the Royal Commission on Infectious Disease Hospitals, and their report. During the last debate in the House of Commons on the motion of Mr. P. Taylor, the amendment of Sir Joseph Pease for the abolition of accumulation of penalties for non-vaccination, which had passed the House in the form of a Bill two years ago, was countenanced by the Ministers and both sides of the House; and it is acknowledged in the amendment of Sir Lyon Playfair, that passed the House, that the law required such modifications as experience might suggest. I beg to observe that Parliament could not have access to the experience of the profession but only through such a systematic inquiry as I am conducting. With the increasing popular prejudice against vaccination, there is a growing tendency in the medical press to lose sight of the principles of vaccination, and to defend and explain away the shortcomings and abuses of the present system and its practice. Under these circumstances, the public look upon vaccination with increasing distrust, and the number of the unvaccinated class is annually increasing.

It would be a fruitless task for me to talk about the protective power of vaccination in individual cases, and its power for the prevention of epidemics, aided by isolation and other sanitary measures, before a representative assembly of the British medical profession, such as I am now addressing; but I do wish to draw their attention to the fact that the national statistics of small-pox and vaccination are much neglected; and the authorities should be asked to adopt some measure to render them complete. We are now on the close of the year 1883, and we have been favoured with vaccination-returns for the year 1879. I think these returns should be made to appear with the returns of the Registrar-General, so that we might have an opportunity of judging of the vaccination from year to year in districts throughout the country. In some districts, the vaccinators and the vaccination-officers are more scrupulous in returning these certificates than others; consequently, these figures do not always represent facts. Such a state of affairs is rendered more deplorable when it exists among the poorer classes and in crowded districts. Again, the vaccinated population has not yet been ascertained, by census or other means, in counties, throughout the country. Under these circumstances, I am of opinion that the system of vaccination-statistics requires a thorough reorganisation to render them trustworthy and useful.

The statistics of small-pox cases and mortality are still more unsatisfactory. We hope that the day may come, which must be far distant, when all the cases of infectious diseases in the districts will be known to the health departments, and from which we would be able to know the severity of the epidemics. At present our knowledge is principally derived from the returns of mortality, and such cases as are admitted to the hospitals and revealed to officers of health. I regret to observe that in the metropolis the statistics of the small-pox hospitals in connection with the Metropolitan Asylums Board are deplorably bad, giving us no knowledge of the quantity and quality of vaccination, separately or collectively, of the metropolis among the admissions. Before the year 1879, the statistics were arranged in tables, drawn up by the several medical superintendents as they liked. In my Report of the Fulham Small-pox Hospital for the year 1878, I strongly urged upon the authorities the uniform classification of the varieties of variola and of the standard and degrees of vaccination, so that such classified information arranged in tables would enable others to judge of the immunity from and prevalence of small-pox among the vaccinated, vaccinated, and unvaccinated classes. But the Asylums Board, constituted as it is of the managing guardians of the metropolis, do not think it necessary to do more than manage these institutions.

The medical superintendents, as a rule inexperienced at the commencement of their career, are left without scientific and skilful guidance in their responsible professional work, and the medical department of the Local Government Board think it no business of theirs to interfere. The consequence has been that the tables framed by their clerks are handed over to them to be filled up, which give only a rough idea of the admissions, deaths, and discharges, adding little more to the knowledge than that derived from the stewards' and gate-porters' books. I have abundance of evi-

dence to prove that these statistics lack much of necessary care and exactness. They have constituted a class of cases "doubtfully vaccinated," increasing with the cry of the antivaccinators, which bids a hearty welcome to their assertions that the severe cases are put down to the unvaccinated and the mild to the vaccination, and that the new creation is a sort of compromise. It also leads the public to think that the previous medical superintendents and other observers were influenced by some motive not to recognise the difficulty of expressing their doubts. I speak from a somewhat large personal experience, that this difficulty is not so much of finding out the marks, as to judge of the truth of the patients' statements, as it is due to the carelessness of the observers, and reliance of irresponsible persons. I hope these institutions will soon become the centres of scientific inquiries, and cease to be charities managed by the Asylums Board according to their convenience, bestowing patronage on their friends and dependants.

Lastly, I come to the important and vital question of injuries to health and deaths attributed to vaccination, which is at present agitating the public. My inquiry has not yet been complete so as to make any definite observations on the subject, but the *Transactions* of the Vaccination Inquiry, Part I, partially represent them. The scientific advisers of the Grocers' Company, three of the four of whom have had considerable experience in the administration of vaccination, seem to recognise the gravity of the question in offering the investigation prize for the discovery of a nonorganic medium for the propagation of vaccine-virus, which in itself has never been definitely ascertained and cultivated.

It is unfortunate that they fail to recognise the importance of the investigations I am conducting by not favouring me with a research scholarship, on a promise to make a tour to all the important vaccination-stations in Europe and America, and gather the experience of all the civilised nations. I hope the medical profession will fearlessly speak out the truths of their experience in vaccination, and give the vaccination-inquiry their deserving support. It is by the expression of their experience collected in a record, the exposures and criticisms of the shortcomings, that we shall be able to understand its principles, better improve its practice, judge of the necessary reforms, and guide future legislation on vaccination.

A CASE OF EXTRA-UTERINE FETATION.

Read in the Section of Obstetric Medicine.

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I FEEL some diffidence in bringing before the Obstetric Section a single case of this kind; but the records of such are so scanty, the views concerning treatment so vaguely expressed, in most writings on the subject, that it may, perhaps, serve some useful purpose, if, by relating one successful case, we can elicit the opinions of those who have had a larger experience as to the best modes of dealing with extra-uterine pregnancy.

Mrs. W., aged 26, living in the country, was sent to me by Dr. E. Tylecote, of Great Haywood, in February 1883. She had always been an active woman, but never very strong. Catamenia continued regularly up to June 1881, six months after her marriage, when she believed herself to be pregnant. Morning sickness was followed by abdominal enlargement, and about the following Christmas, something like movements were felt. Her medical attendant was never able to hear any foetal sounds. The abdominal enlargement continued up to the end of March, when she was of the size of a woman at the full term. She remained about the same until the beginning of May 1882, when she was seized with abdominal pains and sickness. The pain did not last long, and returned only once. There was a free watery discharge, sudden and profuse, which was supposed to come from the uterus, and she was thought to be in labour. Dr. Tylecote says: "On making an examination *per vaginam*, I was surprised to find the os small and undilated, with an elongated cervix." She was confined to her room for two months after this, with what appears to have been a low form of peritonitis, which left her very weak. From this time, the abdomen gradually diminished, and, in November, she was nearly of her usual size, with "a hard roundish tumour, larger than a foetal head, remaining, rather to the right of the mesial line." Menstruation was re-established in August 1882, and has continued fairly regularly since.

In December, the abdomen again began to increase in size, and became more or less painful, so that she was quite unable to attend to any household duties. The enlargement was most marked to-