SOME FORMS OF OSTEITIS IN HEREDITARY SYPHILIS.

Read in the Section of Pathology.

By C. MANSELL-MOULLIN, F.R.C.S.,

Assistant-Surgeon to the London Hospital.

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 antisyphilitic 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.

By MONTAGUE D. MAKUNA, M.R.C.S., L.R.C.P. Lond.

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