which lingers for a short time at the seat of inoculation and then rapidly spreads through the body. This organism transmitted from parent to child is the cause of inherited syphilis.

2. Many forms of arthritis formerly classed as syphilitic are due to other infective agents acting upon tissues modified by the action of the syphilitic virus.

3. Syphilitic changes in the bones, joints, tongue, and other parts may occur as a result of inherited syphilis much later in life than is usually recognized. They are then the result of accidental causes, and they are often the only evidence of the inherited taint.

4. The modern treatment of syphilis consists (a) in the more careful administration of mercury, which is now given to cure the disease itself, and not merely to relieve the symptoms as has hitherto been the case; (b) in a recognition of the limitations of the absorptive power of the iodides; (c) in a freer use of surgical methods to remove the products of syphilitic inflammation before the iodides are administered.

A CASE OF OCHRONOSIS.

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THE case which is the subject of this communication seems worthy of being placed on record, owing to the unusual features which it presents and the absence of any discoverable cause of the abnormal pigmentation which is to be described.

History.

J. A., a farmer, aged 60, first came under observation in October, 1907. He complained of an increasing discolouration of the skin of the face, which he had first noticed early in that month, and which was then sufficiently marked to cause comment amongst his friends and in the streets. His previous health had been entirely good, and may be dismissed without comment beyond the statement that in the month of September he had suffered from "eczema" of the chest. This was apparently nothing more than a "flannel rash," for which he was treated by a chemist. The latter, as we found on investigation, had supplied him with ung. hydrarg. nit., and this was applied to the chest but not to any other part of the body.

Condition on Examination.

He was a healthy-looking man, well nourished, and somewhat inclined to stoutness. The colour of the skin of the face was a slaty-blue, which, over the malar eminences, where it was first noticed, was almost black. Towards the forehead it gradually faded away into normal pigmentation, and in the less pigmented area the skin could be seen to be thickly sown with minute patches of deep brown pigment, less than half a millimetre in diameter. The pigmentation extended backwards as far as the ears, which were both discoloured, the helices especially being of a dark-blue tint. The patient being bearded, the skin of the jaw was not so easy to examine, but apparently it was not pigmented. In fact the pigmentation was confined to those parts of the face which were exposed to the weather, for it faded rapidly above the level of the hat brim, and in those areas protected by the growth of hair. The hands and forearms showed the tanned and brown condition common to men living in the open air, but there was no abnormal discolouration. The skin over the trunk was also free from excess of pigment, but over the abdomen, chest, and back were scattered numerous black warts. These the patient said he had had all his life, and, as far as he could tell, not one of them had recently altered in size or given him any pain. A careful examination of them did not disclose any evidence of ulceration, irritation, or growth, nor were any of the superficial lymphatic glands enlarged or tender. The mucous membranes were almost free from pigmentation. On the right side of the hard palate, just in front of its junction with the soft palate, there was a small, round, bluish patch about 1 mm. in diameter, and in the left eye, on the temporal side and just external to the cornea, there was a slight brownish discolouration. The fundi oculorum were normal, beyond a little excess of pigment round the discs.

The urine was repeatedly examined, but nothing abnormal was found. Its specific gravity was 1020, the colour a pale amber, and it contained no albumen or casts.

All his organs appeared normal, there being no evidence of disease in any of them.

The diagnosis will best be considered by discussing the various possible causes for such a condition.

It is not a case of vascular dilatation and turgescence, since the coloration is permanent and cannot be lessened

or removed by pressure. It must be remarked, however, that exposure to cold causes a deeper coloration, superimposing a vascular congestion on the pigmentation. Neither is it a case of cyanosis, for the same reasons, and from the fact that the mucous membranes preserve their normal colour.

Melanosis.

This seemed a possible cause, and diligent search was made to discover a primary melanotic growth. As stated, there were numerous pigmented warts on the skin, but they all seemed to be quiescent. Rectal examination revealed nothing, nor was there any history of blood being passed with the stools, nor of any rectal pain. The eyes also, so often the seat of such a primary growth, were quite healthy. Moreover, in the event of its being melanosis, it would be expected that the urine would contain melanin, but there was no history of dark-coloured urine ever having been passed, nor of its having darkened after being voided. The addition of oxidizing agents to the urine caused no darkening, as would have been the case had melanogen been present. Farther, the patient's general good health, the absence of any lymphatic enlargement, and the fact that he maintained his body weight, all seemed to negative this diagnosis.

Metallic Poisoning.

The long-continued use of certain metals, notably silver, arsenic, and lead, have often led to a permanent pigmentation of the skin. Inquiry was therefore made into the patient's history, to ascertain whether he had been in the habit of using preparations of any of these metals, either industrially or medicinally, but without result. Even in his farm duties he had not been brought into contact with them. Special attention was paid to the question of sheep-dipping, as many of the preparations used for this purpose contain arsenic, but it appeared that he had not had anything to do personally with this work. The ointment prescribed by the chemist was a simple mercurial preparation, and the small quantity (less than half an ounce) used was obviously not to blame.

As far as possible, therefore, the question of metallic poisoning has been excluded. On the other hand, the pigmentary distribution, in the parts of the skin exposed to the weather, corresponds with that seen in argyria.

Ochronosis.

From the description of the case it will be seen that it corresponds very closely with those rare cases which have been described under this title. A case was fully reported by F. M. Pope in the *Lancet* of January 6th, 1906; and in the *Quarterly Journal of Medicine* for January, 1909, Professor Osier and other writers critically review all the recorded cases, and describe a new case, supplying also a complete bibliography.

The association of ochronosis with alcaptonuria is still undetermined. In our case there was at no time any evidence of the presence of alcapton in the urine. The urine did not contain a reducing agent, nor did it darken on the addition of oxidizing agents. Further, there was nothing in the patient's history to indicate that he had been exposed to the possibility of poisoning with carbolic acid, which is occasionally the precursor of alcaptonuria. He had not used any carbolic preparations since the previous lambing season—that is, a clear six months previously, and then only to a small extent in the weak solution of one ounce in a pint of oil as a lubricant.

In the case of ochronosis recorded in the *Quarterly Journal of Medicine* there was a clear history obtainable of the use of carbolic acid in the immediate period before the appearance of the pigmentation. Other cases, however, have not given this history.

For the present we are inclined to classify this case as one of ochronosis, and the chronically would favour this view, for at the time of writing, six months after its first appearance, the pigmentation is, if anything, more pronounced than when first seen in October.

THE late Mr. Caleb Ashworth Tate, of West Dulwich, whose will has recently been proved, bequeathed £5,000 each to the National Hospital for the Paralyzed and Epileptic and the National Society for the Employment of Epileptics. He also left sums of £1,000 each to the Surgical Aid Society and the British Home for Incurables, Streatham.