

OLIVER (C.A.)

REPORT OF A CASE OF INTERSTITIAL KERATITIS IN A
SUBJECT WITH PROBABLE HEREDITARY SYPHILIS.

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Read October 15, 1884.

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THE object in bringing this case before you, is not to evoke any unnecessary discussion as to the probable character of pathological changes, nor to give either the etiology or literature of the disease; but it is owing to the fact that this most amenable of corneal inflammations should be placed before the general practitioner in such a way that proper therapy might be employed in a manner that would soon lead to partial or entire restitution of both condition and function.

Probably many of you are aware that the disease had been recognized for many years, under various guises, such as strumous or serofulous corneitis, keratitis serofulosa, etc., before the genius of a Jonathan Hutchinson gave it a true causal relationship in describing it as one of the offsprings of syphilitic taint; though it is to be regretted that his enthusiasm led him too far when he asserted a belief that "chronic interstitial keratitis is essentially an heredito-syphilitic disease." This was refuted by hosts of continental writers, in such a positive and unequivocal manner, that all unbiased observers have been brought to the standpoint that there is a *form* of parenchymatous keratitis which is pathognomonic of hereditary syphilis. Personally, I am convinced that the case I shall bring before you, is an example of this character of the inflammation, although, in a desire not to be too dogmatic in an assertion, I have employed the qualification of probability.

May 10, 1883.—S. A. S., aged 10 years, a sallow and coarse-skinned girl of stunted growth; showing marked Hutchinson's teeth, scaphoid curve of face, superficial cicatrices at the angles of the mouth, and a prominent forehead (hydrocephaloid type of Taylor), presented herself for inflammation in both eyes. This, she said, was of two months' standing. Her parents were living, and said to be healthy. The patient was the second of a family of seven girls, none of whom, with the exception of this one, had had any eye trouble. The first child had always been perfectly healthy; whilst the second (the patient), the third and the fourth had each a rash in infancy. The fifth died of marasmus. No history of any illness in the

sixth and seventh children ; the younger being but eighteen months of age. The patient stated that her vision had gradually failed, commencing in the left eye, accompanied by very slight ocular pain. No periorbital neuralgia of any kind. She also complained of a swelling on the inner face of the anterior portion of her right leg ; painful at night. With the right eye she saw fingers at two feet ; with the left, fingers at one foot. Each cornea presented an almost uniform translucent appearance, with isolated spots of denser infiltration more generally in the periphery, and extending irregularly to the corneal summit ; this condition was more pronounced on the left side. Both conjunctivæ showed slight injection of their blood-vessels, with some congestion of the deeper ciliary branches. The irides were barely visible ; the position of the pupils being known by the difference in the reflected color of the corneal membrane at the points opposite. A large node on the right tibia could be plainly felt. The child was orderedunctions of one-drachm masses of mercurial ointment, twice daily. To use a collyrium of neutral sulphate of atropia (gr. ij), three drops in each eye, twice a day. Patient to wear protective glasses, and to report at the clinic once a week.

May 17.—Better. O. D. V. = $\frac{2}{1}$; O. S. V. = $\frac{1}{4}$. Pupil of right eye was fully and evenly dilated, whilst that of the left eye but slightly so, although the mother of the patient claimed to have used the mydriatic in both. Treatment was continued.

May 24.—General condition much improved. Node on the right tibia not so painful, and possibly a trifle smaller in size. No indication of mercurial stomatitis. Right pupil the more dilated. O. D. V. = $\frac{1}{1}$; O. S. V. = $\frac{1}{4}$. Impossible to obtain accommodation with the ordinary test-types. To continue treatment.

June 7.—Left pupil was as large and as even as its fellow. O. D. V. = $\frac{2}{1}$; O. S. V. = $\frac{1}{4}$. No evidence of salivation or of local action upon the skin. No change in treatment.

June 21.—Child presented a much better appearance ; cheeks fuller, with a much healthier tint of skin ; lips ruddy. Mother asserted a gain in general weight ; appetite improved ; bowels regular ; able to sleep well at night. Both pupils fully and evenly dilated ; tibial node had disappeared. On account of slight tenderness of the gums, as evinced by sharply snapping the teeth together, she was told to stop the ointment ; the collyrium ordered to be used twice a week ; patient to cleanse her mouth thoroughly with pure water, several times daily.

July 9.—O. D. V. = $\frac{1}{1}$; O. S. V. = $\frac{1}{4}$. Ophthalmoscopic examination of the right eye showed that the disc, though plainly visible, was very gray in tint ; this latter being probably partly due to the hazy cornea. The edges of the disc were somewhat obscured by coarse retinal striation, whilst its substance was seemingly thickened, as if from previous inflammation. To the temporal side of the disc could be seen numerous irregular black massings ; to its nasal side, some black pigmentation. No visible splotches or hemorrhages. Marked evidence of past choroidal disturbance, as shown by the visibility of the larger choroidal vessels and black interspaces, as well

as by a few isolated degenerative areas. Examination of the left eye showed that the cornea was more hazy than its fellow, and that though the disc was not so prominent as the one in the right eye, yet it was grayer in appearance—this latter was probably due to the increased haze of the cornea. Same character of choroidal ring and irregularly broken *conus* as in the other eye; disturbance of choroid more in case: near the macular region, between it and the disc, there was a large blackish spot of pigment. Ordered the yellow oxide of mercury in vasoline (gr. ij ad ʒj), to be used twice daily upon each eye, in hopes of still further clearing the corneal opacities.

REMARKS.—For several reasons, the case is interesting from a clinical point of view. First, in the long-continued tolerance of large doses of mercury. For over a period of six weeks, the child was probably absorbing sixty grains of the drug daily, without the least evidence of any detrimental result. This, no doubt, was dependent not only upon account of the possible lessening of the absorptive powers of an improperly nourished integument, or the more probable voracious appetite of a “*lues venerea*,” for the metal of the god who was entrusted with the amours of Jupiter; but to certain rules that were strictly enforced and obediently followed. The child was carefully watched throughout the entire time; certain hygienic precautions pointed out to the mother; mouth periodically and properly cleansed after each meal; orders given to alternate the frictions from the inguinal to the axillary regions; continuance of the instillations of atropia, even after all cessation of any appearance of its local necessity, in order to combat any tendency to a stomatitis or salivation: all allowed valuable continuance of a powerful drug during the height and subsidence of grave and destructive eye-symptoms. To be certain that she was receiving a drachm of the ointment at each sitting, the formula was so arranged that two ounces were divided into sixteen masses, and each mass was wrapped in a separate piece of oiled paper. The child was told to perform the inunctions with her naked hand for at least twenty minutes at a time, taking care to remove her gold finger-ring during the rubbing. Any form of the drug might have been used, but after some considerable trial with the other preparations, this form has been preferred to all others, for reasons of promptness and efficiency of action. The complaint of its dirtiness is of very little importance, when the great value of the material is considered.

Second, the non-employment of hot stupes to the affected organs. The use of warmth to promote an increased supply of

blood to the part, did not seem to be indicated; the corneæ rapidly became vascularized of themselves, carrying off the effete material, and leaving but a residuum of local cell change, as shown by some slight opacities of a probably permanent type.

Third, the slowness of dilatation of the left pupil. It is reasonable to suppose that this want of action was owing either to the inflamed and infiltrated cornea not allowing proper endosmosis of the drug; or that a low grade of inflammatory action of the tissue of the iris existed, causing such plastic formation and cell infiltration as to prevent muscular action.

Fourth, the probability of hereditary syphilis. The family history, although imperfect in the want of positive evidence of the disease in the parents, is rendered almost pathognomonic by the order of occurrence of probable hereditary syphilitic lesions in the patient's sisters. It will be noticed that the oldest child was healthy, and that the hereditary taint, first manifested in the second child (the patient), continued to the sixth; whilst the seventh child, which was also seen by the writer, was to all appearances healthy. There can be but little doubt that the primary disease in the parents originated between the times of the births of the first and second children, upon which latter child it spent its greatest force; its manifestations dying away by degrees, until the youngest children have either been saved, or that the infection has been so slight as to render their symptoms either vague or void.

The child's past and present histories speak very emphatically of the character of the type of the disease. The rash in infancy, and the character of the onset of the eye trouble; the form and the symmetrical variety of the keratitis; the typical teeth; the characteristic countenance and stature; the superficial cicatrices at the angles of the mouth; the coarseness of the integument and the tibial node; the denial of vaccination and the want of appearance of any vaccinal scar; the rapid improvement under the use of the alterative, with the almost seeming immunity of the system to the deleterious effects of the drug: are all, to the writer's mind, conclusive evidences of the heredito-syphilitic type of the disease.

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