Kipp (C. J.)

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Bilateral Recurrent Inflammation of Tenon's Capsule

IN CONNECTION WITH

PROFOUND MERCURIAL POISONING.

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A CASE OF BILATERAL RECURRENT INFLAMMATION OF TENON'S CAPSULE IN CONNECTION WITH PROFOUND MERCURIAL POISONING.

By CHARLES J. KIPP, M.D.,

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Louis Oxfurth, a German, 39 years of age, came to the Newark Eye and Ear Infirmary for the first time March 3, 1890. According to his statement, his right eye was wounded by pieces of glass in an explosion of an electric incandescent lamp, the day before. Immediately after the explosion he visited an infirmary in New York, where he was told that the injury was insignificant, and that the eye would get well if he applied cold compresses to the lids. I examined the eye very carefully, but could discover only a very small wound of the cornea, close to its outer margin. I advised him to bathe his eye with a warm solution of boric acid. The patient did not return to the infirmary till the 29th day of March, twenty-six days after his first visit. He stated that his eye had not troubled him much till a few days ago, and that he had been working at his business since his first visit. His right eye was now in the following condition: The lids were oedematous but not markedly red, and a broad fold of swollen conjunctiva protruded from the palpebral fissure. On opening the lids, *the whole* ocular conjunctiva was found to be intensely congested and greatly swollen, and surrounded the cornea like a wall. The eyeball was considerably protruded, and its motility was greatly impaired in all directions. Attempts to move the eyeball in any direction caused much pain. There was absolutely no muco-purulent secretion in the conjunctival sac. The cornea was transparent, only a small macula indicating the site of the wound. The anterior chamber was of normal dimensions; the aqueous was clear. The iris and lens showed no evidence of disease. The vitreous was transparent, and no disease of the optic nerve, retina or

choroid could be discovered. The eye was slightly myopic (1.5 D.) and vision was $\frac{5}{15}$. The left eye was apparently normal. In addition to the eye disease, I noticed that he was affected with what, at first glance, seemed to be shaking palsy. His very fetid breath, of which I had become aware during the examination of his eye, now induced me to examine his mouth, and I found that he was salivated, the gums were inflamed and ulcerated, and the teeth were loose. The tongue was very tremulous. Inquiry as to his occupation now revealed the fact that he was, and had been for many months, employed in exhausting the air from the glass bulbs of electric incandescent lamps, which is done by means of metallic mercury falling from a height. More or less of the mercury is spilt in this process and becomes volatilized, and is inhaled by the persons employed in the room. Considerable of the metallic mercury is also handled by the men, and, unless they are very cleanly, is thus introduced into the system through the mouth and skin. The patient admitted that he rarely washed his hands before eating, and he seemed to think that the tremors and the other symptoms from which he was suffering, were unavoidably associated with his occupation. With this knowledge before me, I now made another and more thorough examination of the man's condition, and found that he had the usual symptoms of profound mercurial cachexia.

I admitted the man into the wards of the infirmary on the 1st of April, and prescribed for him a generous diet, iodide of potassium in five-grain doses three times daily, six leeches to the temple, and fomentation of a warm two per cent. solution of boric acid to the eye. Under this treatment the chemosis and the congestion of the ocular conjunctiva gradually subsided. The eyeball resumed its normal position in the orbit, and the eye could be moved again in all directions. About the tenth day after his admission to the infirmary, the eye was so nearly well that I thought of discharging the man. At this time the man began to complain of pain in the *left eye*, which up to this date had been entirely healthy. An examination of this eye showed considerable injection of the ocular conjunctiva, especially at the equator, and slight oedema of the same, otherwise it ap-

peared to be normal. On the following day, the left eye was found to be worse, there was greater congestion and oedema of the ocular conjunctiva, and both the upper and the lower lids were somewhat oedematous. I prescribed ice to the lids and leeches to the temple, but this treatment did not prevent the progress of the disease. The oedema of the ocular conjunctiva increased till a broad fold of the swollen conjunctiva protruded from the palpebral fissure. The eyeball was gradually pushed out of the orbit till it was protruded about two lines, and the eyeball could hardly be moved in any direction. In the meantime the right eye had become entirely normal in appearance and had resumed its normal position. Finding that cold applications to the lids did no good, I substituted fomentations of a warm two per cent. solution of boric acid. Frequent examination of the eye with the ophthalmoscope failed to reveal any change in the fundus oculi, and the cornea and iris were not involved in the disease at any time. The eye remained in the condition above described for about four days, and then gradually improved, so that about the twentieth day from the beginning of the disease in this eye, only very moderate congestion and oedema of the ocular conjunctiva remained. The other symptoms having disappeared, I discharged the man April 29th, but advised him to continue the iodide of potassium, as the symptoms of mercurial poisoning, although much improved compared to the condition when he was admitted, were still well marked.

May 1st, the patient returned with the *right* eye again painful and red. The lids of this eye were puffy, and the ocular conjunctiva was intensely congested and oedematous. The *left* eye was nearly normal. The right eye was treated as in the first attack, but this did not stay the progress of the affection. To be brief, this attack did not vary from the first in any particular, and lasted about twenty days. After the subsidence of this second attack of the *right* eye, the *left* eye again became painful, and went through the same process a second time, the second attack, like the first, lasting about twenty days, and then passing away without any material damage to the eye.

June 12th.— Both eyes are now in their normal position in

the orbit. The eyelids are normal and the ocular conjunctiva is still a little congested, though no longer swollen. The vision of both eyes is the same as before the attacks. The gums are more healthy looking and the tremors have subsided in a considerable degree. The man felt sufficiently well to go to work, and although I advised him to seek other employment, returned to his old occupation, and continued at this work till July 31st, when another attack of inflammation of his right eye compelled him to give it up. This attack did not differ greatly from the previous attacks, but was not quite as severe as the others; it passed away under the treatment above described. He again went to work in the same place and had no further trouble with his eyes till October 18th, when another attack brought him back to the infirmary. This time the *left* eye was affected. The attack was not as severe in character nor as long in duration as the previous ones. After his recovery from this attack, he found employment elsewhere, and since then he has had no return of the eye disease. I have seen the patient several times during the last year, and on his last visit to me, about six months ago, I found that the tremulousness of his hands was hardly noticeable. His health was fair.

I have called the eye affection here described, an inflammation of Tenon's capsule, but think it very probable that more or less of the cellular tissue of the anterior part of the orbit was involved in the morbid process. The inflammation of the right eye undoubtedly followed an injury to this eye, but the inflammation of the left eye was not due to such a cause. Whether, in this case, the disease germs traveled from the right eye, through the sheath of the optic nerves, to the capsule of Tenon of the left eye, and then set up the same morbid process, or, whether the mercurial cachexia which was present was the cause of the inflammation of both eyes, I am unable to decide. I have not seen another case like it during the thirty years that I have practised medicine, and a somewhat careful search of the literature has failed to find anything similar to it.