

ties and cauterization of the ulcer, thus, you will notice, departing from my rule of having a culture taken before starting treatment. The ulcer continued to spread rapidly, so that in forty-eight hours I felt there must be something lacking, either or both in diagnosis and treatment. Whereupon I had a culture taken, and to my own surprise and that of the pathologist, Dr. McKee, he found the Morax-Axenfeld diplobacillus. The treatment was immediately changed, and the solutions of zinc sulphate substituted for the antiseptic lotions. The change within twenty-four hours was marked, and the progress thereafter towards recovery was very rapid. I have cited this case in full in order to impress both the importance of the bacterial examination of these ocular conditions, and also its value as indicating the proper treatment.

The metallic salts break up in the conjunctival sac and act by precipitating the albuminates, which agglutinate the euzymes and active agents of the inflammation, the freed acid of the salt thereupon exerting its caustic action.

It is interesting to note that this bacillus maintains its virility in cultures up to the seventh generation. The diplobacillus enters the eye either from the air, in a dried or fluid form, or by actual contact; it has been found in the posterior chambers of the nose, whither it may have come from the eye by way of the tear-duct. On the other hand there is a possibility of its spreading in the opposite direction from the nose to the eye. This diplo-bacillus retains its activity and power of reproduction after being dried for fourteen days, but this is likely due to its being surrounded by a sheath of mucous, which prevents it from really being absolutely dried up. The presence of this germ, and its attendant inflammation, have been frequently reported in Europe, and its occurrence has been noted a few times in the United States; but as far as I am aware its first definite appearance in Canada has been noted in my clinic at the General Hospital by Dr. S. H. McKee. The disease is by no means a new one, but the bacterial cause had not been traced until lately.

Under the microscope you will find several specimens, also a culture on blood-serum of Morax-Axenfeld bacillus, forty-eight hours in incubator—forms little pits which later coalesce and liquify.

We have another type of conjunctivitis frequently associated with infiltrations of the cornea, which take on a malignant type and develop the above-mentioned serpiginous ulcer; later on it may be complicated by iritis. The conjunctiva is at first