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VARICELLA OF THE CORNEA

BY

RANSOM PICKARD

EXETER

THE occurrence of a corneal affection in varicella is a great rarity. Of the references given by Sir John Parsons in his work on the Pathology of the Eye none concerns the cornea, in the bibliography of an article by Dr. J. D. Rolleston on ocular complications in varicella (*Medical Chronicle*, p. 356, 1909) only two cases of varicella of the cornea are given, one of which is here cited (Oppenheimer's case). The writer of this note has not had access to the remaining case. Comby (*Traité des Maladies de l'Enfance, Grancher et Comby*, p. 380-1, 1904), writes:—

“J'ai vu aussi la varicelle atteindre . . . même la cornée, déterminant . . . kératite varicelleuse qui peut avoir sa gravité et laisser à sa suite une plaie indélébile.” He does not state the number of cases he has seen nor does he give any details.

E. H. Oppenheimer (*Deutsche Med. Wochenschr.*, Vol. XXXI, p. 833, 1905), gives a detailed account of a case of varicella of the cornea. It occurred in a two-year-old girl. She and three siblings had had chicken-pox. The eye affection began in the left eye on the sixth day of the disease. In the outer lower quadrant, 3 mm. from the centre of the cornea, was a vesicle two pinheads in width, which had perforated. To the perforation was attached a small mucoid string. The upper lid and conjunctiva were much swollen and injected, and had muco-pus adherent to them. There was very little circum-corneal injection, although the bulbar conjunctiva was very red. The pupil was round, small, and reacted only slightly.

Very slight photophobia was present. In the course of the following day an ulcer formed, but by the eighth day of the eye affection (the fourteenth day of the varicella) this was covered with epithelium. Four days later a shallow, smooth hollow remained, a pin's head in size, without any sign of inflammation.

Oppenheimer adds a paragraph on the literature of corneal affections in varicella. He quotes Schmidt-Rimpler and Seitz as stating that occasionally corneal infiltrations occur, but points out that in a large number of books on children's diseases no mention is made of corneal affections in this disease.

Dr. A. Simey, of Exeter, for twenty-two years medical officer of Rugby School, tells me that, among thousands of cases of chicken-pox he saw there, no cases of keratitis occurred, although vesicles were occasionally seen on the conjunctiva.

This affection being so uncommon is the reason for recording the present case. The patient P. J., a boy, 10 years of age, was the last of a family of four children to develop varicella. The other three cases had been slight, the vesicles had the usual distribution, there being no herpetic grouping in any. This was also the case with P. J., who developed varicella on January 21, 1935. The right eye began to be irritable on February 11. He was seen by the writer on February 13.

The condition on February 18 was as follows:—A few varicella scabs still remained on various parts of the body and scalp. *Right Eye.* V. 6/24(2)n.i. Conjunctiva slightly pink. Iris normal but of sluggish reaction (at no subsequent period was there any synechia or deposit of pigment on the lens).

Cornea. There was a central opacity, well defined, grey in colour, with slightly crenated edge, circular in outline and in diameter equal to a quarter of the cornea. The slit-lamp showed the cornea to be swollen in the region of the opacity, not bulging forward but towards the anterior chamber. The section of the cornea was yellowish and mottled. On the posterior surface of

18/2/35

28/2/35

2/9/35

the cornea was a flat brownish-yellow mass, having a spongy free surface. The cornea elsewhere was normal. The left eye was normal.

Ung. Hyd. Flav. c. Atrop. was ordered to be used twice daily.

February 23. R. E. V. 6/18(1). Slit-lamp. Cornea still swollen, bluish-grey in the section with fine white granules. Near the upper edge the epithelium was raised .04 mm. high over an area .08 mm. in diameter (real, not apparent measurements). The mass on the posterior surface was smaller in all dimensions, above it had become a thin plate.

March 2. R. E. V. 6/12(1). The bleb on anterior surface and the deposit on posterior surface had gone.

March 9. Cornea of normal thickness and colour, except for a white anterior surface opacity and a brown sheen on the posterior specular reflex.

April 26. R. E. V. 6/5(3). Minute surface nebula, to the inner and lower side of corneal centre. With the exception of a small opacity in the middle layer at the lower part of the original site the substance of the cornea appeared normal.

September 2. R. E. V. 6/5(6). A minute surface nebula, about one-eighth of the cornea in diameter still exists. This cornea is now slightly thinner than the left unaffected cornea, but its curvature is normal.

It is to be noted that at no period was any thickening of corneal nerve fibres to be seen.

There are some resemblances between Oppenheimer's and the present case. In both the corneal affection began late; in his on the sixth day, in the present case twenty-one days after the onset of varicella. In both the affected area was small and well localized, the inflammation disappearing quickly and almost completely. Although no obvious iritis occurred in them at any time, the iris in each reacted slowly.

The main difference is that in Oppenheimer's case there was a vesicle which developed into an ulcer; in that now described there was only a microscopic bleb which did not perforate and soon disappeared.

The slit-lamp appearances showed that the keratitis involved the whole thickness of the cornea; and as usually occurs in the majority of cases of interstitial keratitis, the swelling was backwards towards the anterior chamber, not forwards. The brown exudate on the posterior surface of the cornea was confined to the site of the inflamed cornea, there was no other patch of keratitis punctata. It very closely resembled in colour and appearance a thin rubber sponge when the eye was first examined by the slit-lamp on February 18, seven days after the eye trouble had commenced. The final thinning of the cornea with no alteration in

its curve is noteworthy, the eye retaining full vision with no manifest error of refraction.

It is noteworthy that though the inflammation was severe with a good deal of exudate from the posterior surface of the cornea it yet remained localized, suggesting that it was caused by an organism having a limited growth whose course soon came to an end. It will be seen that in these respects the affection of the cornea is similar to that of the skin.

The question arises whether this might be considered as the sole manifestation of herpes of the first branch of the fifth nerve. A resemblance is the late period in which the corneal trouble arose, three weeks after the onset of the varicella; which is a very common time for herpetic affections of the cornea to begin. But there was no pain at any time, very little photophobia; while the rapid and practically complete recovery is very different from herpes. The simplest explanation is that it was a varicella eruption, occurring late because of the special structure of the cornea, a non-vascular and dense tissue which offers special difficulties to the transit of the virus.

A CASE OF CHLOROSIS WITH OCULAR COMPLICATIONS

BY

J. BRUCE HAMILTON

HOBART

It is an undisputed fact that chlorosis as a disease died with the passing of the 19th century, and according to L. J. Witts⁴ it has almost completely disappeared to-day. Its aetiology, and the reason for its disappearance are alike unknown, but Tidy⁵ suggests that its disappearance may be attributed to the improved hygienic life of girls, to whom the disease was almost entirely confined.

The ocular complications of chlorosis have been occasionally recorded, and Foster-Moore² in 1925 was able to collect in the literature the records of 9 cases, reported between A.D. 1881, and the time of writing. But a request from me to the Librarian of the Royal Society of Medicine for photostatic copies of reports of all recent cases of chlorosis with ocular complications has resulted in only one record by Brazeau being found. In view of these facts I feel it incumbent on me to place on record a further case of chlorosis with ocular complications, and after reporting the case fully, I will make some comments on these complications.