Xerophthalmia and Measles in East Africa

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In most African countries the mortality of measles is high. Measles is also notorious as a cause of blindness. Over a period of 3 weeks, 30 children suffering from measles were subjected to an ophthalmological examination in various places in East Africa. With one exception, all of them exhibited the symptoms of xerophthalmia. In the more severe cases, there was little or no pericorneal injection; detachment of epithelium occurred in the majority, edematous opacity of the cornea in several, while 2 patients in addition to these symptoms also exhibited hypopyon. One child contracted measles while hospitalized because of malnutrition; apparently, 3 weeks' adequate diet had protected it sufficiently to prevent the symptoms of xerophthalmia from developing. During the same period, over 100 patients were seen who presented a great variety of corneal cicatrization, nebulae, maculae, leukomas and staphylomas and even phthisis. In practically all these cases, the patients themselves or their parents mentioned measles as the cause.

An eye with staphyloma, which allegedly had occurred after measles in a child approx. 7 years old at the time of the examination, could be enucleated and examined histologically. It was remarkable that signs of active inflammation were absent. The iridal stroma, the endothelium, Descemet's membrane and Bowman's membrane were absent. There were necrotic spots in the corneal stroma. The posterior layer of the iris was lying against the thinned remnants of the corneal stroma, while pigmented cells had apparently penetrated into the corneal stroma from the iris. The corneal epithelium showed numerous spots of thickening and cornification with ridging, whereas it was thinner than normal in other places.

Franken

297

It may be stated with a high degree of probability that this is the picture of development of staphyloma as seen after exacerbation of xerophthalmia. Such conditions have also been described in Western Europe, late in the last century, but they have disappeared with improved nutrition.

References

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