

Nursing of Diseases of the Eye.

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DISEASES OF THE CONJUNCTIVA.

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Ophthalmia neonatorum.—This disease, the purulent ophthalmia of the new-born, is among the most important of all the common diseases of the eye. Like the purulent ophthalmia of the adult, it is always due to infection. In the infant this takes place, as a rule, during labour, occasionally later from carelessness, and both eyes are usually affected. The eyes at the time of birth are apparently healthy, but after a day or two, usually on the third day, the conjunctiva becomes reddened, and there is a small amount of sticky discharge, glueing the eyelids together during sleep.

In another twenty-four hours, the discharge becomes purulent; the vascularity and swelling of the conjunctiva enormously increase. The whole of the lid becomes affected by the inflammation which spreads from the conjunctiva; and there is diffuse œdema of the skin of the surrounding parts, varying in degree with the severity of the inflammation. Often the swelling is so extreme as to render it difficult to open the lids at all, and when they are separated a gush of greenish pus wells out.

The lids by their shape, form, owing to the contraction of the irritated orbicularis, a water-tight joint, and the pus secreted by the inflamed conjunctiva is retained between the lids and the globe, bathing them all in a constant sea of pus. The conjunctiva of the globe shares in the general inflammation, and becomes puffed up with inflammatory products (chemosis), so that it may stand up like a wall round the cornea; the chink within the chemosed conjunctiva holding a secondary reservoir of pus.

If all goes well, the purulent discharge in about a fortnight becomes thinner, and gradually ceases, leaving the conjunctiva thickened and velvety, covered by numerous fine papillary granulations. These after some weeks subside, but there is always some scar tissue left in the conjunctiva as a result of the preceding inflammation, that may be found permanently as whitish bands, especially noticeable in the superior fornix.

These white lines are often the only evidence of the former attack of ophthalmia.

But if the disease does not run so favourable a course—and in a large percentage of untreated cases the result is much more serious—we must be prepared to find complications. Not in-

frequently the corneal epithelium, macerated by its constant immersion in pus, is destroyed and thrown off, laying bare the substantia propria of the cornea, Bowman's membrane, which is at once invaded by the micro-organisms. This invasion is easy because the power of resistance of the cornea is always low.

It possesses no blood vessels, and relies, as we have seen earlier, chiefly on the arteries which approach its margin from the muscular branches. These vessels are to some extent interfered with by the exudation which has given rise to the chemosis of the conjunctiva, and thus the cornea is even less ready than usual to repel the invading infection. The ulceration therefore proceeds rapidly; pus burrows in the layers of the cornea, forming small abscesses, which are seen as whitish-yellow areas, with more or less circular outline. The corneal tissue in front gives way, and the whole area of the abscess becomes an ulcer, which in many cases will perforate, allowing the partial or total escape of the contents of the globe. So long as the cornea remains intact the disease will not do any serious permanent damage to vision, but if once the cornea shares in the process the prognosis is much more severe. In all probability permanent damage to the sight will result.

The importance of the disease is twofold. In the first place, at present to it is due a very large proportion, probably at least ten to fifteen per cent., of all blindness. The blind population of Europe is estimated at more than 300,000, of these from thirty to forty-five thousand are blind from ophthalmia neonatorum.

And in the second place, it is eminently amenable to treatment, so that if ophthalmia neonatorum were abolished, as it could very well be, given favourable conditions, from 30,000 to 45,000 persons would be saved from this calamity. Already, thanks to very simple precautions, it has to all intents and purposes disappeared from Lying-in Hospitals.

It is some years since Credé pointed out that routine cleanliness at the time of birth would prevent ophthalmia neonatorum. His method was twofold: careful cleansing of the mother, and, after delivery, attention to the child.

Immediately after birth, while the lids are still closed, they are to be wiped carefully, to remove as far as possible any discharge that may be sticking to them. Then the child is washed, and during the first bath, care should be taken that the eyes are not touched, even by the water of the bath. This precaution is obviously necessary, as the discharge from the body of the child, even when diluted, is still able to act as a source of infection. The bath over, the eyes are to be cleansed by a gentle stream of water, and a drop of solution of silver nitrate, grx to the ounce, dropped into each eye.

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