Nursing of Diseases of the Eye.

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AFFECTIONS OF THE IRIS.

A gap in the continuity of the iris, whether traumatic or congenital, is called a "coloboma"; it is not always easy at once to distinguish in a given case which of the two conditions is present; but a little attention will soon clear the matter up. The congenital coloboma is almost always situated directly downwards, where an iridectomy is rarely performed, and it is always clear that the gap is part of the pupil. There are no sharp angles between the two spaces, and the sphincter of the iris can be seen surrounding the gap.

An adhesion between the iris and another structure is called a synechia. This may be to the cornea, an anterior synechia, or to the lens, a posterior synechia. The pupil at one stage of development is closed by a membrane, the pupillary membrane, which arises from the anterior surface of the iris some little distance from the pupil, at a point where, normally, a series of arcades can be seen, and adheres to the anterior surface of the lens. It is by no means easy to say in all cases if a synechia be a remnant of this pupillary membrane or an inflammatory adhesion of the pupil margin. The former, however, can always be traced to spring from the anterior surface of the iris, and not as the latter from the extreme edge.

The reflexes of the pupil have been mentioned in an earlier lecture. They should always be carefully noted in every patient, since they afford valuable evidence as to the condition of the nervous system. The reflex to light is not uncommonly lost, although the reflex to convergence is retained; this, an early symptom in tabes dorsalis and general paralysis of the insane, is known as the Argyll Robertson or A.R. pupil reaction.

We must repeat the caution to cover the fellow eye when the examination is being made, since light falling on either eye should produce contraction of both pupils.

Inflammation of the iris.—Iritis is one of the commoner diseases of the eye—either as a separate entity or combined with inflammation of some other part. Probably, as a matter of fact, the iris is very rarely attacked alone, without some other region of the uveal tract being affected. It is anatomically almost impossible that the contrary should be the case; however, the iris is often the predominant partner, and we are justified in speaking of iritis.

This disease occurs from many causes; all wounds of the iris are necessarily followed by a certain amount of reaction, which may be called a traumatic iritis. Apart from this, several general diseases are very apt to be followed by inflammation of the iris, notably rheumatism and syphilis, either acquired or hereditary. Tubercle and gout are also occasional causes. A very severe form, which is indeed only part of a general uveitis, is one of the risks attendant on perforating wounds of the globe. It attacks the uninjured eye, and is called sympathetic ophthalmia.

Lastly, there are cases of iritis for which no obvious cause can be found, and which are, therefore, termed idiopathic, this name being a convenient cloak for our ignorance.

The iritis due to rheumatism, which will serve as a type, may occur with any form thereof; in young men it is commonly gonorrhœal in origin, but it often is a complication of simple acute or chronic rheumatism. The signs of iritis are pain, ciliary congestion, and photophobia; the iris often looks a muddy green, either from lymph in its own tissues, or from turbidity of the aqueous humour. The eye is red, the injection having a purplish pink hue, and being deepest close to the cornea. Even when the conjunctival vessels also are dilated this pink zone shows through quite obviously, and if light pressure be made on the globe through the lid with the fingers we may readily see that the superficial vessels are emptied and the deep ciliary zone remains, showing that there is increased vascularity of the deeper parts.

Often, as a result of the accompanying inflammation of the ciliary body, masses of lymph are thrown out into the aqueous, which, being heavier than the aqueous humour itself, descend to the lower part of the anterior chamber, and are deposited on the back of the cornea in a roughly triangular pattern. This condition is called keratitis punctata. It is not really a keratitis (there is no inflammation of the cornea), but rather is a manifestation of cyclitis.

This lymph may be more considerable in quantity and sink to the lower part of the chamber in a mass forming a hypopyon; this is seen as a whitish-yellow crescent at the lower part of the cornea. It is not a common complication of iritis, except in the comparatively rare form associated with diabetes; here it is said to be of frequent occurrence.

To continue the ordinary symptoms of iritis, the pupil is inactive and rather contracted. The eye is tender to the touch; the tension may be normal, but more commonly either increased or diminished.

This, again, is due to the fact that the ciliary body is involved. The tension of the eye is chiefly maintained by the fluids poured out from this structure; inflammation impairs its functions, and the fluid secreted in iritis is altered both in quantity and constitution. It is at once less copious and more albuminous. Now the aqueous fluid escapes through very fine apertures at the filtration angle, and if the albuminoid matter is in large quantity