Mursing of Diseases of the Eye. By Harold Grinsdale, F.R.C.S.,

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DISEASES OF THE RETINA AND CHOROID.

As far as the vitreous is concerned, injections of pilocarpin seem to exercise a real influence—probably by exciting the secreting glands of Collins. I have seen a vitreous, so opaque as to render the fundus quite invisible, clear within a few weeks under this treatment.

Where these injections are employed they are usually given on alternate days. The patient should be clad in a flannel gown and wrapped closely in a blanket immediately before the drug is used, and should remain in them for three hours after. In favourable cases the area of detachment diminishes, and may entirely disappear, but the improvement does not, unfortunately, always remain permanent, and detachment reappears sooner or later.

Recently several French surgeons have advocated the use of strong solutions of common salt under the conjunctiva, with the hope, apparently, of producing disappearance of the sub-retinal fluid by absorption. In their hands the method seems to have had considerable but varying success.

The injection even with the addition of acoin gives rise to severe pain, and is sometimes followed by iritis. Even where it immediately succeeds, the retina frequently again separates from the choroid after a short interval, and the disease is not permanently cured.

I have tried this method on several cases of detachment, and so far have not been convinced that the results were better than those attained by complete rest and the use of pilocarpin.

In dionine we have a drug which increases the lymph circulation throughout the eye. It has been suggested to use its lymphagogic power to promote absorption of the sub-retinal fluid and improve the nutrition of the vitreous. This power is, however, unfortunately evanescent; the patient soon tolerates large doses locally without effect.

Tumours of the coats of the eye are not uncommon. In children there is found a very malignant form—glioma of the retina. The first indication of this is often a brilliant pinkish reflex from the pupil, which the older writers called "amaurotic cat's eye." There is a non-malignant exudation found sometimes in the vitreous, which presents a very similar appearance, and is therefore often called pseudo-glioma. In very young children ophthalmoscopic examination is difficult. When it can be made, the true glioma will be found more vascular than the false; the tension is a valuable sign—it is often increased in true glioma, especially in the later stages. It is lowered from an early period in pseudo-glioma. Wherever the diagnosis is doubt ful, the eye should be removed. If it is really suffering from the non-malignant disease, the loss to the patient is small; the eye is necessarily blind and is shrinking. The retention of a glioma, on the other hand, means inevitable death within a few months.

Sometimes the tumour is bilateral; even then double enucleation may save the child's life.

If no operation be undertaken, the tumour perforates the globe either at the entrance of the optic nerve or along some one of the perforating vessels, and a large, rapidly-growing malignant mass pro-trudes from the orbit. This breaks down on the surface, and the child may die from exhaustion consequent on repeated bleeding. If the operation have been delayed too long the optic nerve may be infected, and there may be local recurrence. In this case the surgeon may decide to empty the orbit. This is a severe operation, and one accompanied by copious hæmorrhage, which it is difficult to control. The vessels are cut far back, close to the apex of the cavity, and ligature is almost impossible. The actual cautery is required, since no other means are available, and the nurse should see that Paquelin's cautery is at hand.

Though a cure is rarely effected when once the tumour has passed the limits of the globe, the operation is advisable, since the child is spared much pain if the local disease is removed.

Adults are attacked not very rarely by sarcoma of one of the parts of the uveal tract. This can, in the early stage, be recognised by the ophthalmoscope as a rounded, often slightly lobulated, tumour under the retina. It does not at first interfere much with vision, nor give rise to pain. The first defect is a gap in the field corresponding to the portion of retina detached by the tumour. Later we may find the tension rising and the eye becoming glaucomatous. The lens loses its transparency, and the condition of simple absolute glaucoma is simulated perfectly.

In a third stage the globe is perforated and the growth invades other tissues and gives rise to metastatic tumours in widely spread regions of the body. It is then beyond the surgeon's reach. In the early state we can remove the globe with the contained tumour, and have a fair prospect of safety from recurrence. Since the eye shows externally no signs of the contained defect, it is most important to be careful to note which is the affected eye before proceeding to operate. It is recorded that on one occasion at least the surgeon has removed the healthy eye in mistake for the one containing the tumour. The nurse should note carefully and put a mark on the side to which the eye belongs, e.g., a small ink blot on the forehead or malar prominence, at some distance from the orbit. Even then no careful surgeon will operate without verifying the note himself by an ophthalmoscopic examination. For this purpose a lamp must be at hand,



