

Nursing of Diseases of the Eye.

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OCULAR THERAPEUTICS.

(Continued from p. 323.)

Local blood-letting is quite frequently advisable in ophthalmic surgery, and is usually performed by leeches. Two or more should be induced to make an attack on the temple close to the external canthus of the affected eye. Formerly leeches were applied to the skin of the lids or even to the conjunctiva, but these positions have no advantage over the one named above, and the blood is liable to effuse into the cellular tissues. The easiest way of applying a leech is to put the animal in a test-tube and hold its mouth down on the part where it is desired that the bite should be made. If the leech does not bite of its own accord, a little milk on the skin will often induce it to do so. Each leech removes about one drachm of blood, but by warm applications to the little puncture the amount can often be increased to half an ounce after the tube is removed.

Occasionally, when the natural animal is absent, its place must be taken by the so-called artificial leech of Heurteloup; this process is really a variety of "wet cupping"; an incision is made through the skin by a sharp trephine worked by a spring and trigger. Over the incision is placed a small air pump, into which is drawn as much blood as is thought fit. In this way the amount can be regulated with the greatest nicety. Patients, however, dislike this, as a rule, much more than the natural leech, and complain considerably of the pain caused.

The following remedies may, with advantage, be kept in the Ophthalmic Ward.

Mydriatics (pupil dilators).—Homatropine Hydrobromate. This is chiefly used for producing temporary dilatation of the pupil to allow examination of the fundus. It may, however, sometimes be substituted for atropin when this is not available. The solution should contain gr. 6 to the ounce, and may be combined with gr. 10 of cocain to produce a speedy effect. Atropin Sulphate should be kept in solutions of varying strength with or without cocain. I find drops of atropin sulphate gr. ij. ad. ℥i; and of cocain and atropin, cocain hydrochlorate gr. x., atropin sulphate gr. iv., ad. ℥j. to be the most useful. At the same time a number of ointments are prepared of the pure alkaloid, and I usually keep three strengths. In the strongest 8 gr. of atropin and 8 gr. of cocain are present to the ounce of vaseline; the others contain 4 gr. of atropin with cocain, and 2 gr. of atropin only.

Mydriatic antiseptics.—Atropin can with advantage be combined with certain antiseptics, and is of great value as an ocular sedative.

Thus an ointment is kept containing Iodoform and Atropin, and another containing the yellow oxide of mercury (Hydrarg. oxid. flav), and atropin. Lastly, a solution containing neutral sulphate of quinine and atropin, aa gr. iv. ad. ℥j, is a very useful application in the form of drops.

Apart from its action as a mydriatic, atropin paralyses the ciliary muscle, and exercises a vasoconstricting force, diminishing the vascularity of the eye.

Some patients have a great antipathy to atropin. Even a single drop will, in susceptible patients, cause an acute dermatitis. In such cases it cannot be used, and must be replaced by some other drug. Scopolamine, duboisin and homatropin are all sometimes useful in such cases. Children sometimes show signs of general atropin poisoning—dryness of the throat is followed by a bright red rash, like scarlet fever, and delirium. Adults rarely get general poisoning, though a dry throat is not uncommonly a source of complaint.

**Meiotics* (pupil constrictors).—The only meiotic in common use is physostigmia. This should be kept in two strengths. One may contain gr. ij, or gr. iij. to the ounce; if this is employed for long it produces irritation, and a weaker solution combined with cocain is necessary.

Physostigminæ sulphatis gr. i.
Cocainæ hydrochloratis gr. v.
Aq. ℥j.

One should note that though physostigmia is the pharmacopœial name, common usage still retains eserine. The two names are used for the same substance.

Local Anæsthetics.—Cocain is the chief amongst these, and should be kept in several strengths and combinations. The action of cocain is to abolish the sensibility of cornea and conjunctiva, and to some extent of the deeper parts. If a momentary and superficial anæsthesia be all that is demanded, a single drop of cocain solution, two per cent., will produce it in a couple of minutes. In more extensive operations, a strong solution, five per cent., or even ten per cent., is required. A freshly sterilised solution *must* always be used for such cases.

The further effect of cocain is to produce vasoconstriction, and slight mydriasis. Operations under this drug are therefore more nearly bloodless than when a general anæsthetic, or even eucain is employed.

It must be remembered that cocain stops the secretion of tears. If, therefore, an eye, which is being cocainised, be allowed to remain open, the epithelium dries and may be shed. This would be very inconvenient before an operation.

* The word is often wrongly spelt myotic.

[previous page](#)

[next page](#)