

days for duboisine or ten or twelve days for atropine. Then, too, homatropine causes no noticeable and distressing symptoms, like the dryness of the throat, flushing of the surface, incoordination of motion, or even delirium, which are liable to follow the use of the other mydriatics. Although, as I have elsewhere pointed out (*Medical News*, July 24, 1886), this drug does usually to some extent influence the action of the heart.

When as a therapeutic measure the power of accommodation is paralyzed, such paralysis should always be made complete. Strain of accommodation occurs when the power of the ciliary muscle is insufficient for the performance required of it. In such a condition nothing could be more irrational than to lessen still further its power while still requiring it to do some work, as inevitably happens when an eye is placed partially under the influence of a mydriatic. When in doubt as to the propriety of a certain measure, it seems natural not to push it very vigorously. So physicians, uncertain as to whether or not a mydriatic should be used, say in a case of strain of the accommodation or in commencing convergent squint, are rather apt to use a weak solution of the drug, or make the application at long intervals; thinking, by such a tentative employment of the remedy, to discover if indeed it is likely to give relief. I have even seen in cases of headache belladonna given by the mouth (causing paresis of accommodation), with a vague notion that it was especially indicated by the eye symptoms. Now, as the mydriatic used in these ineffective ways can only weaken still further the already relatively weak ciliary muscle, the result must be still greater suffering on the part of the patient, and still greater confusion on the part of the doctor. If you use a mydriatic to relieve strain of accommodation, use it so that complete paralysis of accommodation will be secured as soon as possible, for only then does accommodative effort cease. Homatropine is inferior to atropine or duboisine where the influence over the accommodation is to be long maintained; for after each instillation of the former, recovery of ciliary power will begin within two or three hours, and the instillations must be repeated at least that often, to prevent the alternation of periods of rest. With the other mydriatic solutions recommended for this purpose, at least eight to twelve hours elapse before there is any noticeable lessening of the influence of the drug, so that three instillations a day will be sufficient to uniformly sustain their action. Again, the period after the use of the drug is suspended, when the eye is but partially under its influence, is one of especial danger. Even with careful, intelligent patients, much of the benefit that would otherwise accrue from prolonged mydriasis is often lost at this time.

As a therapeutic measure, dilatation of the pupil is resorted to in cataract, mainly involving the centre of the lens; and in breaking up posterior, or central anterior, iritic adhesions. For the former purpose one of the weaker solutions of atro-

pine, duboisine, etc., applied once, every one, two, or three days, is sufficient; cocaine not being well suited to this purpose on account of the evanescence of its action, and its inability to maintain dilatation against a strong light.

To maintain dilatation of the pupil against a congested or inflamed iris, or to break up iritic adhesions, use the strongest mydriatic solutions that need ever be applied to the eye. For such purposes one may employ the following, or even stronger solutions:—

Atropine sulphate, gr. j. water f ̄ j,	or 1 to 60;
Duboisine sulphate, gr. j, " f ̄ j,	or 1 to 120.

Here we wish to develop the maximum effect of the drug upon the iris, and the instillations should be repeated at short intervals, say every half-hour or hour, until the pupil becomes fully dilated, or the symptoms of mydriatic intoxication become so pronounced that the use of the drug can be pressed no further.

To get the maximum effect on the eye with the least absorption of the drug into the general system, as little of it as possible must be permitted to enter the tear passages, and find its way to the mucous surfaces of the nose and throat. To hinder such escape of the solution, the nasal extremities of the lids, including the canaliculi, may, as is often recommended, be firmly pressed against the nasal process of the superior maxilla. But I think it is much more effective to evert the lachrymal puncta, and keep in contact with the adjoining surface a bit of absorbent cotton. To aid in securing the same object, it is important to use a very strong solution of the drug, and place but a single small drop upon the cornea at once. I use a dropper with a small end, that will give less than a half-minim of water to the drop. When larger amounts of fluid are instilled a greater proportion runs off with the tears. When both eyes are affected with iritis, it is sometimes wise to concentrate the mydriatic attack upon one of them one day, and upon the other the next; in order to get the full force of the drug in tearing loose adhesions. The power of atropine or duboisine in this direction may be somewhat supplemented by the simultaneous use of cocaine; though on account of its effect on the cornea I would not continue the applications of cocaine more than a few hours, nor repeat them before the second or third day.

All the mydriatics mentioned, except cocaine, seem to exert a direct influence over the nutritive processes of inflammation, which gives them great value in the treatment of many inflammatory affections of the eye. I will not now attempt to cover this field of their application, both because it is so extensive and because I do not feel that I can here speak so definitely. It may, however, be mentioned that, subject to the contraindication of glaucoma, and aside from their influence on iritic adhesions, the most obvious indication for the use of a mydriatic in an inflammatory disease of the