

# FURTHER STUDIES OF THE CYCLOPLEGIC VALUE OF HOMATROPINE *PLUS* COCAINE DISCS AS ATROPINE, DUBOISINE AND HYOSCINE SUBSTITUTES.

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NEARLY three years ago, in an article contributed to the *American Journal of Ophthalmology*, I gave the results of some experiments I had made with mixtures of Homatropine *plus* Cocaine, and with solutions of Atropia and Duboisine for the purpose of comparing their relative merits as Cycloplegics. The conclusions I then arrived at were these :

1. In the shape of watery solutions probably less than ten per cent. of the dissolved alkaloid becomes absorbed in such a way as to affect the eye, the remaining ninety per cent. or more being carried off into the nasal duct or flowing over the cheek with the tears.

2. Mixtures prepared with Vaseline, Cosmoline, Sanitas Jelly, Lanoline and similar menstrua or, as in Lang and Barrett's\* experiments, Castor Oil, are much longer retained in the conjunctival sac. The drugs thus longer kept in contact with the ocular and palpebral surfaces undergo, as Green suggests, a much more extensive absorption and produce a still more pronounced effect.

3. They are absorbed by the blood vessels and other absorbents of the cornea and conjunctiva and not by those of the nose and throat. But such oily and greasy mixtures have this serious drawback : they leave a thin film upon the corneal surface which interferes with the examination of the eye especially when one wishes to determine its refractive condition.

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\*LANG AND BARRETT: The action of Myotics and Mydriatics. *Oph. Hos. Reports*, vol. xi., pp. 130 and 219.