

a four grain solution were instilled into each eye three times, at intervals of twenty minutes, and the examination made in from one to two hours after the last dose.

The discs were employed as hereafter described. Every precaution was taken to prevent poisoning by the Hyoscin and Hyoscyamin.

Atropia, Hyoscin and the discs were used for the examination of the same meridia in thirty instances. In sixteen of these the refraction was exactly the same, or the highest differed from the lowest not more than 0.25 D. In ten instances the difference was 0.50 D. In only two instances out of the thirty was there a greater difference than 0.50 D., a case to be afterwards referred to.

In these thirty cases Atropia showed the highest refraction, or was one of the highest in nineteen instances; Hyoscin in twenty-two instances and Homatropine and Cocaine discs in fifteen instances.

Coming now to the tests of Atropia and Homatropine *plus* Cocaine discs we found that they were the same or did not vary more than 0.25 in fifty-eight out of sixty-eight meridia. In the remaining ten the result varied +0.50 in eight cases, and in two instances there was a radical difference, to be again referred to. Speaking generally Atropia showed a higher refractive condition than the discs in twenty-one out of sixty-eight cases, while the discs showed an increased refraction over Atropia in four instances. In a single instance of mixed astigmatism, before referred to, did the refraction of two principal meridia amount to more than +0.50, viz: 0.75 D. and 1.75 D. greater in the case of Atropia than that shown by the discs. In this case the discs were first used. That this may happen in a second trial of any cycloplegic (in relieving a spasm of the accommodation) is well known. I have recently had a case, which well illustrates this fact, where a second trial with Atropia revealed a much greater difference.

A boy, aged 16, with V. =  $\frac{5}{8}$ —and marked astigmatism in each eye, was atropinized in the usual way with a one per cent. solution and the skiascopy result was:

+2.75	+3.50
+2.50	+3.25.

A week later he was found to have, with full correction, 9/6 nearly in either eye. My suspicion being aroused by this early acceptance of his glasses, I again atropinized his eyes and the result was:

+4.	+4.75
+4.50	+5.25

i. e. an advance of between 1.25 D. and 2. D. in the four meridia Ten days