



Comment on: ‘Cochrane corner: Atropine: an ancient remedy for a twenty-first century problem?’

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To the Editor:

We read with interest the recent Comment on atropine in *Eye* [1]. Unfortunately, the casual reader may be misled by a number of incomplete statements.

First, the authors state that atropine showed “an estimated 1.00 D reduction in myopia from baseline at 12 months compared with placebo”. This was only with 1% and fails to mention that the 2-year slowing of myopia is also about 1.00 D—in other words, there may be no second-year treatment benefit.

Second, the authors state that optical interventions have “only a small benefit in slowing myopia (typically ≤ 0.20 D)”. This understates the efficacy reported in multiple studies, including one that they cite, showing 0.40 D in the first year [2].

Third, the authors state “high myopia is a major risk factor for a number of potentially blinding ocular pathologies”. In one study, over half of cases of myopic maculopathy occurred in myopes below -5.00 D [3], so many discourage dichotomization of myopia.

Finally, and most worryingly, the authors state that “atropine 0.01% was the most effective of the three treatment arms in slowing myopia progression” [4]. Like other reviews of this trial, they ignore the fact that atropine 0.01% failed to slow axial elongation. This was supported by the cited Low-Concentration Atropine for Myopia Progression study that found a non-significant 0.05 mm slowing of axial elongation for 0.01% atropine (equivalent to <0.15 D) [5]. Since 0.01% atropine is the most commonly prescribed myopia treatment among paediatric ophthalmologists, children who could receive effective myopia control treatment

are being prescribed one, which may have no or limited effect.

We agree with the authors’ sentiments that this is a rapidly moving field. Worldwide, there are nearly 50 ongoing registered clinical trials on low-concentration atropine for myopia. Sadly, none are comprehensive dose–response trials, and many may fail to properly formulate low-concentration atropine, a volatile molecule. We also agree that high-quality systematic reviews are important, but unfortunately, the recent Cochrane review [1] includes no clinical trials from 2018 and 2019. Nonetheless, reporting in short reviews and editorials can be impactful and needs to be accurate and complete.

Compliance with ethical standards

Conflict of interest MAB is a consultant for Alcon Laboratories, Inc. (Fort Worth, TX, USA); Apellis Pharmaceuticals, Inc. (Waltham, MA, USA); Arctic Vision, Ltd. (Shanghai, China); CooperVision, Inc. (Victor, NY, USA); Essilor (Paris, France); Eyeovia, Inc. (New York, NY, USA); Genentech, Inc. (San Francisco, CA, USA); Johnson & Johnson Vision (Jacksonville, FL, USA); Novartis Pharma AG (Basel, Switzerland); and PresbiBio, LLC (Irvine, CA, USA). NAB is an Employee of Johnson & Johnson Vision (Jacksonville, FL, USA).

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