## **A**UTHOR'S REPLY

Singapore Med J 2018; 59(9): 507 https://doi.org/10.11622/smedj.2018112

Dear Sir,

I thank Chia for the letter regarding my 2004 editorial.<sup>(1)</sup> In the 14 years since, the Singapore Eye Research Institute (SERI) has completed the ATOM2 study, in which we definitively showed low-dose (0.01%) atropine eye drops to be both safe and effective over a five-year period, retarding myopia progression by 60% with virtually no side effects.<sup>(2)</sup> ATOM3 has been initiated, in which myopia is being treated in its very earliest stages. ATOM-Japan, involving seven sites throughout Japan, is near completion. We have developed an improved atropine formulation with Santen Pharmaceutical that is currently midway through Phase II trials. Globally, there are over 30 clinical trials evaluating atropine in the United States, United Kingdom, Australia and six Asian countries. A Cochrane review, two major meta-analyses and an American Academy of Ophthalmology review all confirm clear Level I evidence supporting the use of atropine to prevent myopia progression.<sup>(3-6)</sup> SERI has commercialised our 0.01% atropine formulation (Myopine<sup>TM</sup>), which is now available in Malaysia and Singapore on an approved, named-patient basis, and has so far been licensed in 15 countries in Europe and Asia.

Studies on other forms of myopia control therapies are also bearing fruit. Orthokeratology contact lenses have been shown to reduce eyeball growth that contributes to myopia progression, although recent risk assessments for related corneal infections suggest an increased risk in children, similar to overnight wear of soft contact lenses in adults. New optical defocus contact lenses are also undergoing trials.

Clearly, the means of myopia control are with us today. Continued surveillance within clinical and research cohorts, and postmarketing studies are still needed to evaluate long-term safety and efficacy outcomes, but the future looks promising.

Yours sincerely,

Donald TH Tan<sup>1</sup>

<sup>1</sup>Singapore National Eye Centre, Singapore. donald.tan.t.h@singhealth.com.sg

## REFERENCES

- 1. Chia JY. Comment on: The future is near: focus on myopia. Singapore Med J 2018; 59:506.
- 2. Chia A, Lu QS, Tan D. Five-year clinical trial on atropine for the treatment of myopia 2: myopia control with atropine 0.01% eyedrops. Ophthalmology 2016; 123:391-9.
- 3. Walline JJ, Lindsley K, Vedula SS, et al. Interventions to slow progression of myopia in children. Cochrane Database Syst Rev 2011; Dec 7:CD004916.
- 4. Pineles SL, Kraker RT, VanderVenn DK, et al. Atropine for the prevention of myopia progression in children: a report by the American Academy of Ophthalmology. Ophthalmology 2017; 124:1857-66.
- 5. Huang J, Wen D, Wang Q, et al. Efficacy comparison of 16 interventions for myopia control in children: a network meta-analysis. Ophthalmology 2016; 123:697-708.
- 6. Gong Q, Janowski M, Luo M, et al. Efficacy and adverse effects of atropine in childhood myopia: a meta-analysis. JAMA Ophthalmol 2017; 135:624-30.