

COMMENT ON: THE FUTURE IS NEAR: FOCUS ON MYOPIASingapore Med J 2018; 59(9): 506 <https://doi.org/10.11622/smedj.2018111>

Dear Sir,

I read with great interest the article 'The future is near: focus on myopia', which was a good piece for the time it was published.⁽¹⁾ The prevalence of myopia is high and has increased across Eastern Asia; nearly 50% of urban populations are myopic, with a prevalence of between 12.5% and 90%.⁽²⁾ Two popular, efficient myopia control techniques available are orthokeratology (OK) lens treatment and atropine eye drops.

OK treatment was reported to reduce myopia progression by up to 51%.⁽³⁾ Short-term changes with treatment were reportedly reversible. Central corneal thinning was found to correlate with duration of wear, with decreased density of the basal cell after a five-year wear.^(4,5) Other long-term effects include a decrease in basal tear secretion and pigment deposition of a corneal iron ring. Low-dose atropine (0.01%–1%) prescribed nightly was reported to have short-sightedness retardation effects of up to approximately 50%.⁽³⁾ Lower concentrations of atropine were found to reduce rebound upon discontinuation, photophobia and difficulty with near work.

Myopia is a big concern in Eastern Asia. With the increased influence of myopia control treatments, one may wonder whether there will be any long-term effects. At present, applications differ; for instance, United States Food and Drug Administration approved OK therapy for myopia below –6.00 diopters sphere,⁽⁶⁾ and atropine application was introduced at 1% concentration for myopia control. As all research studies have used a time frame of within five years, there is a need to further investigate the safety of these treatments for the long term.

Yours sincerely,

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