

**A combined therapy using stimulating
auricular acupoints enhances lower-level
atropine eyedrops when used for myopia
control in school-aged children evaluated by a
pilot randomized controlled clinical trial**

許紋銘

摘要

Abstract

OBJECTIVE: This study was designed to compare the reduction in myopia progression in patients treated with atropine eyedrops alone with patients treated with a combined treatment of atropine and stimulation of the auricular acupoints. **METHODS:** This study was a randomized single-blind clinical controlled trial. A total of 71 school-aged children with myopia, who fulfilled the eligibility criteria, were recruited. They were randomly assigned into three groups. These were 22 treated with the 0.25% atropine (0.25A) only, 23 treated with the 0.5% atropine (0.5A) only and 26 treated with 0.25% atropine together with stimulation of the auricular acupoints (0.25A+E). The differences in the post-treatment effects among these three groups were statistically assessed. The primary outcome parameter was myopia progression, which was defined as diopter change per year (D/Y) after cycloplegic refraction measurement. **RESULTS:** The mean myopia progression of the 0.25A group was 0.38±0.32 D/Y. No significant difference in mean myopia progression was found between the 0.5A (0.15±0.15 D/Y) and 0.25A+E (0.21±0.23 D/Y) groups. However, there was a markedly reduced myopia progression in the 0.25A+E group compared to the 0.25A group ($p<0.05$). Furthermore, there was no statistical difference among these three groups in axial length elongation (ALE) of eye during this stage of the investigation. **CONCLUSIONS:** This study demonstrates that there was efficacy in stimulating the auricular acupoints and this enhanced the action of 0.25% atropine as a means of myopia control. The result was an effect almost equal to that of 0.5% atropine alone. There is also a need that the ALE of the eye should be further investigated over a longer period using the combined therapy.