

## Effect of Low Dose Atropine (0.01%) in school going Myopic children

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### Abstract:

**Purpose:** To determine the effect of low dose (0.01%) atropine in the progression of myopia in school going myopic children.

**Design:** Quasi-experimental study.

**Participants:** A total of 108 children aged (6-12) years with spherical equivalent refraction between -2.00 to -6.00 diopters (D) and astigmatism of  $\leq 1.50D$ .

**Intervention:** Participants fulfilling the eligibility criteria were subjected to 0.01% atropine eye drop use once nightly for 1 year.

**Main Outcome Measure:** Change in Spherical Equivalent Refraction (SER) measured by cycloplegic autorefractometer relative to the baseline.

**Results:** One hundred and eight children (100%) completed the 2-years study. At the end of 1 year, the myopia progression in the treated eyes was 0.99 D. A statistically significant difference in myopia progression ( $p < 0.001$ ) was noted at the end of 6 months and 12 months respectively when compared to the baseline progression. No adverse event related to atropine was reported in this study.

**Conclusion:** Topical atropine was effective in slowing the myopic progression in school going children of Manipur and was well tolerated.

**Keywords:** Spherical Equivalent Refraction (SER), Best Corrected Visual Acuity (BCVA), myopia, atropine, logarithm of the minimum angle of resolution (logMAR), diopters (D).

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