

Effect Of Orthokeratology Contact Lens On Myopia Control In Children With Anisometropia



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Background

There are many unanswered questions about relationship between myopia control and reverse geometric contact lens. We report the clinical features of myopic patients under overnight orthokeratology with steep or flat keratometry in KOREA.

Purpose

To investigate the effect of orthokeratology (OK) lens on axial length (AL) elongation in unilateral myopia and bilateral myopia with anisometropia children. The effectiveness of orthokeratology in retarding anisometropic progression has been investigated in several small-sample studies. This quantitative analysis aimed to elucidate the efficacy of orthokeratology for anisometropia control.

Methods

Yonsei plus eye center in KOREA.
Total 13 patients (7 male, 6 female).
Age 8-13 years old. Mean 11ys old.
Period From 2021. Feb to 2025.Feb

Results

Figure 1. Visual Acuity Change After Orthokeratology with Reverse Geometric Contact Lens.

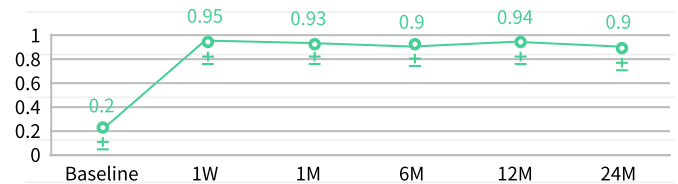


Figure 2. Topography in Orthokeratology

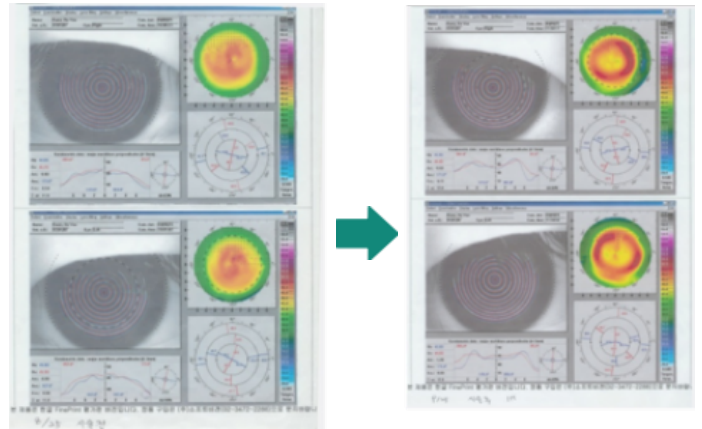
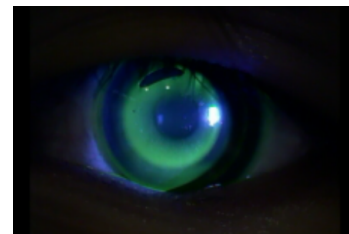


Figure 3. Contact Lens fitting pattern in patients with orthokeratology



Conclusions

Monocular OK lens is effective on suppression AL elongation of the myopic eyes and reduce anisometropia value in unilateral myopic children.
The OK lens can control the AL elongation in both eyes at the same rate, but it cannot reduce anisometropia value in bilateral myopia with anisometropia children after 2-year follow-up. Safe use of Overnight Orthokeratology Contact Lens is predicted on the emphasis of clear patient direction on how to wear and take care of the lens followed by regular examination by eye care specialist.