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## Overnight wearing ortho-K contact lenses in 40 patients at Hai Yen Eye Center, Vietnam

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**Aim/Purpose:** The purpose of this study is to report refractive error changes and visual outcome of number of patients using Cornea Refractive Therapy.

**Methods:** This is a single-center retrospective descriptive study of 40 patients (80 eyes) including 11 male and 29 female, mean age  $14.53 \pm 2.84$ , wearing Fargo overnight Ortho-K contact lenses from May 2014 to February 2016.

**Results:** The result shows mean uncorrected visual acuity (UCVA) at distance of pre-treatment is  $1.22 \pm 0.17$  logMAR; post-treatment one week, one month and three months are  $0.23 \pm 0.025$  logMAR,  $0.19 \pm 0.23$  logMAR  $0.19 \pm 0.24$  logMAR respectively. Mean spherical equivalent refractive error (SER), mean spherical power (SP), mean astigmatism (AS) of pre-treatment are  $-5.52 \pm 2.26$ D (from  $-2.00$ D to  $-10.88$ D),  $-4.96 \pm 2.08$ D,  $-1.12 \pm 0.94$ D appropriately. Mean SER; mean SP, mean AS of three months post-treatment are  $-0.62 \pm 1.11$ D,  $-0.17 \pm 0.93$ D,  $-0.90 \pm 0.64$ D. There are statistically significant changes in UCVA ( $p < 0.0001$ ), SER ( $p < 0.0001$ ), SP ( $p < 0.0001$ ), AS ( $p = 0.01$ ) at three months post-treatment compared with pre-treatment. There are no statistically significant difference of UCVA and SER at one month and three months.

**Conclusion:** In conclusion, visual acuity and refractive error improve significantly and achieve stability after one month treatment of wearing Ortho-K lenses.

### Biography

Nguyen Duc Trong, MD achieved Specialist 1 certification of Ophthalmology (equivalent to Master degree), refraction certification at the Eye Hospital of Ho Chi Minh city. Furthermore, he obtained Ortho-K license fitting from Fargo and Paragon Company. He is currently working at HVEC as an Ophthalmologist, specialized in ocular surface disease. He has experience in fitting Ortho-K nearly for two years.

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