

**Keywords:** Myopia; Refractive error; Ocular health

## Introduction

Myopia is a common refractive error characterized by blurred distance vision. It occurs when the eye's axial length is too long or the cornea is too curved, causing light to focus in front of the retina. This results in distant objects appearing out of focus. Myopia can be corrected with glasses, contact lenses, or refractive surgery [1-3].

## Methodology

This study was a retrospective analysis of medical records from a tertiary care hospital. Data were collected from patients who had undergone refractive surgery between 2018 and 2022. The study included patients with a confirmed diagnosis of myopia and who had completed a minimum 6-month follow-up period. Exclusion criteria included patients with other ocular pathologies, those who were pregnant or breastfeeding, and those who had undergone previous refractive surgery. The primary outcome was the percentage of patients achieving 20/20 or better unaided visual acuity post-surgery [4].

## Management strategies

Management of myopia involves several strategies, including corrective lenses, orthokeratology, and atropine eye drops. Each strategy aims to improve visual acuity and slow the progression of the condition.

**Corrective lenses:** Eyeglasses and contact lenses are the most common methods for correcting myopia. They work by refracting light so that it focuses correctly on the retina. Contact lenses provide a wider field of vision and are less likely to be noticed than glasses. However, they require proper hygiene and regular replacement [5].

**Orthokeratology (Ortho-K):** Ortho-K involves wearing specially designed rigid contact lenses overnight to temporarily reshape the cornea. This allows for clear vision during the day without the need for glasses or contact lenses. Ortho-K is particularly useful for children and young adults, as it may help slow the progression of myopia. However, it requires strict adherence to hygiene and regular follow-up visits [6].

**Atropine eye drops:** Atropine eye drops are used to slow the progression of myopia in children. They work by relaxing the eye's focusing muscles, which may prevent the eye from growing too long. Atropine is typically used at a low concentration (0.01% to 0.05%) and requires long-term use. Side effects can include blurred near vision and light sensitivity [7].

**Lifestyle modifications:** Certain lifestyle factors can influence the progression of myopia. Encouraging outdoor activities, such as sports and walking, has been shown to be beneficial. Additionally, limiting near work (reading, screen time) and ensuring proper lighting during these activities can help reduce the risk of myopia progression. Regular eye exams are essential for monitoring and managing the condition [8].

**Surgical interventions:** Refractive surgery, including LASIK (Laser-Assisted In Situ Keratomileusis), PRK (Photorefractive Keratectomy), and SMILE (Small Incision Lenticule Extraction), offers a permanent solution for myopia. These procedures use lasers to reshape the cornea, allowing light to focus correctly on the retina. Surgical interventions are typically performed on patients aged 18 and older with a stable refractive error for at least one year. They offer the advantage of freedom from glasses or contact lenses, but they also carry risks such as dry eye, glare, and halos [9].

Myopia management is a multifaceted approach that combines various strategies to improve visual acuity and slow the progression of the condition. The choice of management strategy depends on the patient's age, lifestyle, and the severity of their myopia. Regular eye exams and adherence to the recommended management plan are crucial for achieving the best possible outcomes [10].

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**Conclusion**

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