

A Review- Keratoconus and its Current Perspectives

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Abstract

Objective: *To analyze and summarize the ocular condition named keratoconus while investigating the effectiveness of the therapeutic advances associated with this condition.*

Context and Methods: *A progressive bulging or protrusion of the cornea which results in thinning linked with decreased visual acuity combined with irregular astigmatism is defined as keratoconus. Broadly classified into three categories namely mild, moderate and severe, this condition has transcendent therapeutic advancements. First observed in the 19th century, it is a bilateral condition that may occur asymmetric at first and also presents itself in teens or young adults in both genders and progresses until the third or fourth decade of one's life when the cornea becomes stable.*

Current therapeutic advancements include keratometry, spectacle use, soft toric contact lenses, rigid gas permeable contact lenses, piggy back and hybrid lenses. Collagen cross linking, keratoplasty, intracorneal ring segments, ferrara rings, toric implantable collamer lens, intra ocular lens and photorefractive keratectomy are also done and may be done individually or in combination. The type of treatment performed would be based on the severity of keratoconus in the patient.

Results: *Cross linking is currently the most successful advancement for keratoconus where it has halted the progression of keratoconus in a number of patients and also improved their visual acuity thus regressing keratoconus in roughly 69% of patients. 12% of patients with moderate to severe keratoconus required keratoplasty over an eight year period. Also, in deep anterior lamellar keratoplasty (DALK), 80% of patients obtained visual acuity of 20/40 or greater.*

Conclusion: *Scientists are actively working for a cure for this condition and the recent advancements produced very encouraging results. Treatment depends on how soon the diagnosis of keratoconus is made, the urgent and active treatment of the condition along with one's financial status to facilitate the treatments since in most countries patients have to pay for the treatment unless they have health insurance.*

Keywords *Keratoconus, keratoplasty; keratometry.*