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بالرسالة صفحات لم ترد بالأصل

Comparison between Myoring® and 355°KERATACx® in Management of Keratoconus

Thesis

Submitted for Partial Fulfillment of M.D. Degree in Ophthalmology

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Eman Samir Muhammed Edrees

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List of Abbreviations

Abb.	Full term
BCVA	Best corrected visual acuity
CH	Corneal Hysteresis
CIM	Corneal irregularity measurement
CISIS	Corneal intra-stromal implantation system
CRF	Corneal resistance factor
DNA	Deoxyribonucleic acid
ICRS	Intracorneal ring segments
IOP	Intraocular Pressure
IOPCC	Corneal-Compensated Intraocular Pressure
I-S	Inferior-superior
K	keratometric reading
Kc	Keratoconus
KCI	Keratoconus classification index
KPI	Keratoconus prediction index
Max K	Maximum keratometric reading
Mean K	Mean keratometric reading
OD	Oculus dextrus
ORA	Ocular response analyzer
OS	Oculus sinister
PMMA	Polymethyl- methacrylate
SAI	Surface asymmetry index
SE	Spherical equivalent
SRI	Surface regularity index
TGCK	Topography-guided conductive keratoplasty
UCVA	Uncorrected visual acuity

INTRODUCTION

Keratoconus is a progressive, non-inflammatory, bilateral (but usually asymmetrical), degenerative disease of the cornea, characterized by paraxial stromal thinning that leads to corneal surface distortion. Visual loss occurs primarily from irregular astigmatism and myopia and secondarily from corneal scarring ***(Karseras and Ruben, 1976; Kennedy et al., 1986).***

The pathological process as a number of studies have indicated is that keratoconic corneas show signs of increased activity by proteases, a class of enzymes that break some of the collagen cross-linkages in the stroma, with a simultaneous reduced expression of protease inhibitors. This results in a reduction in the corneal thickness and biomechanical strength ***(Andreessen et al., 1980; Spoerl et al., 2004).***

Keratoconus remains one of the main indications for performing perforating transplantation of the cornea, nevertheless, in recent years there has been ever increasing use of methods which can have a favorable influence on the course of the disease, and thus decrease (or even eliminate) the necessity of transplantation, of these methods is implantation of intrastromal ring segments, the purpose of which is to flatten the central part of the cornea and regularize it, which in its result may lead to an improvement of the patient‘s visual acuity and by this helps to relieve major parts of patients’ complaints ***(Studeny et al., 2015).***