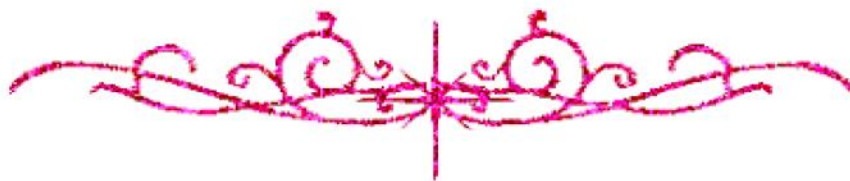


بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

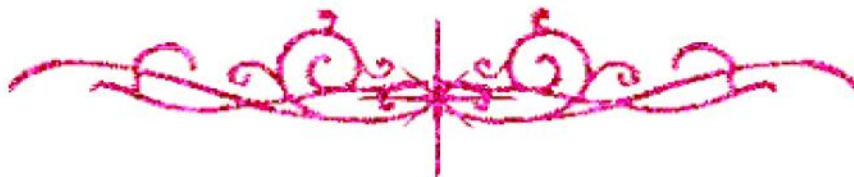
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



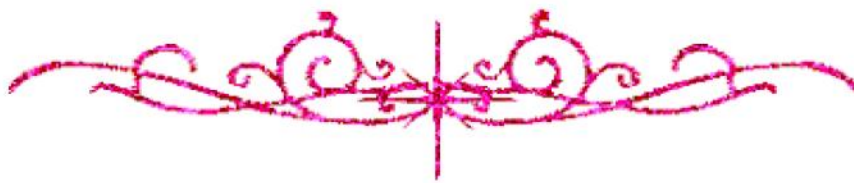
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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



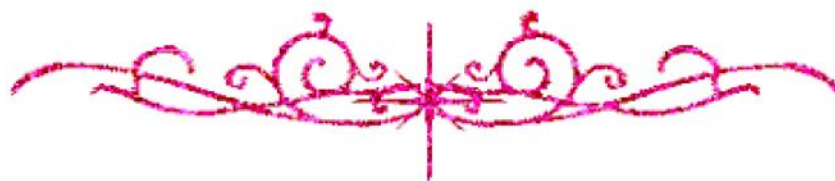


بعض الوثائق الأصلية تالفة





بالرسالة صفحات
لم ترد بالأصل





Axial Length and White to White Corneal Diameter in Eyes with Keratoconus

Thesis

*Submitted for Partial Fulfillment of Master Degree in
Ophthalmology*

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2019

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سَبِّحْكَ لَا يَلْمُ لَنَا
إِلَّا مَا عَلِمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

Abb.	Full term
ACD	Anterior chamber depth
AL	Axial length
ART.....	Ambrósio relational thickness
AS-OCT.....	Anterior segment optical coherence tomography
BFS	Best-fit-sphere
BFTE	Best-fit-toric ellipsoid
CCT	Central corneal thickness
CFs.....	Collagen fibrils
CH.....	Corneal hysteresis
CT	Corneal thickness
CTSP.....	Corneal thickness spatial profile
CXL.....	Collagen crosslinking
DALK.....	Deep anterior lamellar keratoplasty
ECM.....	Extracellular matrix
ICRS.....	Intra-stromal corneal ring segment
IHD	Index of height decentration
IOP.....	Intraocular pressure
I-S.....	Inferior–superior
ISV	Index of Surface Variance
KC.....	Keratoconus
PCI.....	Partial coherence interferometry
PGs.....	Proteoglycans
PKP.....	Penetrating keratoplasty
PPI	Pachymetric progression index
PTI	Percentage of thickness increase
RPE.....	Retinal pigment epithelium
SE.....	Spherical equivalent
SRAX	Skewed Radial Axis
TCT	Thinnest corneal thickness
TP.....	Thinnest point
UBM.....	Ultrasound biomicroscopy
US	Ultrasonography
WTW	White to white

INTRODUCTION

Keratoconus (KC) is the most common corneal ectasia. It usually appears in the second decade of life and affects both genders and all ethnicities. The prevalence in the general population has been estimated to be approximately 54 per 100 000.¹

Keratoconus is characterized by progressive corneal protrusion and thinning, leading to irregular astigmatism and impaired vision. The aetiology and pathogenesis of the condition are not fully understood. However, many studies discussed the early clinical detection of the disease, as well as providing optimal optical and surgical correction.²

Although a steep corneal curvature resulting from ectasia is the primary source of refractive error in KC patients; KC eyes are most commonly myopic, axial length (AL) is a major determinant of ocular refractive power.³

Horizontal or white to white (WTW) corneal diameter is one of the most important geometrical parameters of the cornea that may affect corneal biomechanics.⁴ Corneal thickness (CT) and may be corneal hysteresis (CH) correlated inversely with WTW corneal diameter, on the other hand spherical equivalent (SE), AL, lens thickness, corneal radius of curvature correlated directly with WTW corneal diameter.⁵⁻¹⁰

The question is whether the myopia is a result of the ectatic and steep cornea, or an already associated elongated AL, or both?

Is KC more common in already long or short eyes? Is the ectatic corneal stretch associated with enlarged corneal diameter, axial length or posterior segment stretch?

These questions have not been well studied for KC eyes.