سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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بالرسالة صفحات لم ترد بالأصل

Comparison between Limbal Stem Cell versus Dry Amniotic Membrane Transplantation in Treatment of Primary Pterygium

Thesis

Submitted for Partial Fulfillment of the M.SC Degree
in **Ophthalmology**

By

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بسم الله الرحمن الرحيم

وَقُلِ اعْمَلُوا فَسَيَرَى اللَّهُ
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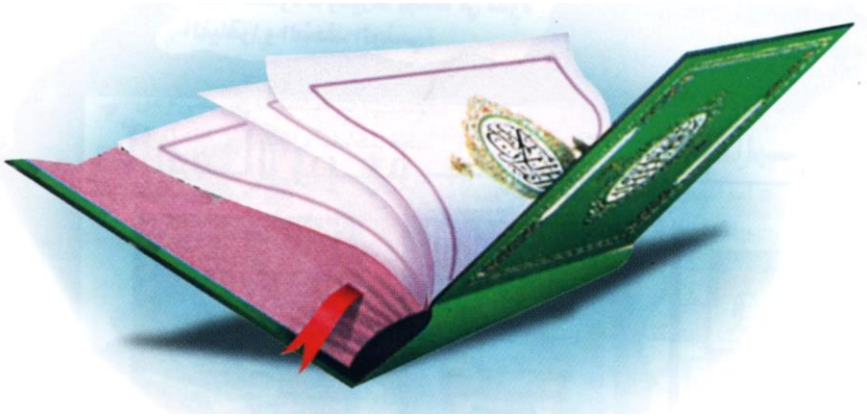

صدق الله العظيم

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List of Abbreviations

Abb.	Full term
AM	*Amniotic membrane*
AMG	*Amniotic membrane graft*
AMT	*Amniotic membrane transplantation*
bFGF	*Basic fibroblast growth factor*
DMEM	*Dulbecco's modified Eagle medium*
DMSO	*Diluted dimethyl sulfoxide*
ECM	*Extracellular matrix*
EGF	*Epithelial growth factor*
FGF-2	*Fibroblast growth factor*
FU	*Fluorouracil*
HGF	*Hepatocyte growth factor*
HlA	*Human leukocyte antigen*
IFN-C	*Interferon-c*
IL-1	*Interleukin-1*
IL-6	*Interleukin-6*
IL-8	*Interleukin-8*
KGF	*Keratinocyte growth factor*
LEC	*Limbal epithelial crypt*
LSCD	*Limbal stem cell deficiency*
MMC	*Mitomycin C*
MMP	*Matrix metalloproteinasas*
OS	*Ocular surface*
PDGF	*Platelet derived growth factor*
SCs	*Stem cells*
Sr-90	*Strontium-90*
TAC	*Transient amplifying cells*
TGF-B	*Transforming growth factor-B*
TIMP	*Tissue inhibitors of metalloproteases*
TNF-α	*Tumor necrosis factor-alpha*
UV	*Ultraviolet*
VEGF	*Vascular endothelial growth factor*

INTRODUCTION

Pterygium is a wing-shaped, fibrovascular encroachment of the bulbar conjunctiva over the limbus onto the peripheral cornea ***(Duane et al., 2009)***. This invasion of the corneal surface can lead to significant visual morbidity caused by irritation of the ocular surface, irregular astigmatism, obstruction of the visual axis, and loss of corneal transparency ***(Rong et al., 2014)***.

Pterygium recurrence is a major complication after pterygium surgery. High recurrence rates (19.4–75%) observed after simple bare sclera excision require treatment with more complex surgical techniques.

These include excision followed either by adjunctive treatment with beta-irradiation, mitomycin C, 5-flurouracil or daunorubicin. Recently, bevacizumab started being used as an adjuvant, regarding its antiangiogenic effects following ptergium surgeries ***(Shenasi et al., 2011).***

Alternatively, there are different surgical options; conjunctival and limbal autografts, lamellar keratoplasty and amniotic membrane transplantation ***(Hirst, 2003).***

Limbal conjunctival autografting involves transplantation of limbal stem cells in addition to autologous conjunctiva in order to cover the defect created from excision of the pterygium. The benefit of this method is that, in addition to