
شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم


# شبكة المعلومات الجامعية

# التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

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

## يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

**To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%**

# بعض الوثائق الاصلية تالفة

# بالرسالة صفحات لم ترد بالاصل

# PHOTODYNAMIC THERAPY WITH VERTEPORFIN AS A LINE OF TREATMENT FOR AGE RELATED MACULAR DEGENERATION

Essay
Submitted For The Partial Fulfillment 0f
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بسم الله الرحمن الرحيم

# قَالُواْ سُبحَانَكَ لاَ عِلمَ لَنَا إِلاَّ مَا عَلَّمتَنَا إِنَّكَ أَنتَ العَلِيمُ الحَكِيمُ

صدق الله العظيم

سورة البقرة آية (٣٢)

To my parents, husband
and lobely daughter

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Thanks first and last to **god** as we owe him for his great care, support and guidance in every step in our life.

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*Sahar*

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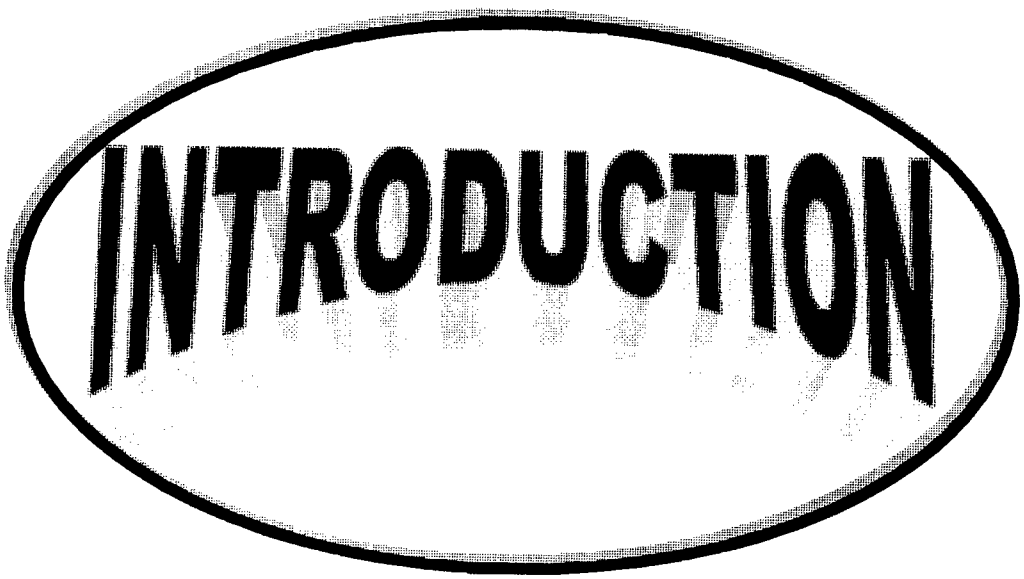
INTRODUCTION

# INTRODUCTION

Photodynamic therapy is a new therapeutic technique which is attracting increasing attention. Its biopharmacological basis of action is the specific interaction of a photosensitizing compound with the cellular elements of pathological lesions. The photosensitizer is thought to enter specifically into the pathological cells; where it accumulates. The lesion is then irradiated with a sensitizing laser beam of specific wave length to activate the photosensitizer which then becomes a generator of free oxygen radicals; these radicals destroy the sensitizer-harboring pathological cells. The advantage of specifically destroying pathological lesions without affecting the surrounding normal tissues is obvious. Many experimental studies have been conducted to test the usefulness of photodynamic therapy for ocular disorders mainly age related macular degeneration; the results are so far encouraging. ***( Solberg and Belkin,1997.)***

Age related macular degeneration is the major cause of loss of vision in older people and approximately 10% of people aged over 65years have early stage of age related macular degeneration. ***( Klein et al.,1992)***

Most of the patients with age related macular degeneration have the non neovascular or dry form of age related macular degeneration which is characterized by the appearance of drusen and by pigment atrophy and hypertrophy of the retinal pigment epithelial cells. Only small proportion of patients with age related macular degeneration progress to have the neovascular or wet form. However, severe loss of vision occurs predominantly in those patients with the neovascular form of age related macular degeneration. ***( Ferris et al.,1984)***

The neovascular form of age related macular degeneration is characterized by choroidal neovascularization followed by the formation of fibrovascular scar tissue. Individuals with choroidal neovascularization due to age related macular degeneration suffer from rapid decrease of their visual acuity and may be legally blind in two years of diagnosis. ***( Bressler et al.,1982)***

Little is known about the etiology and natural history of choroidal neovascularization except in a minority of cases that were enrolled in laser trials. Treatment relies on slowing the growth of the new blood vessels and destroying scar tissue, which can be achieved by laser photocoagulation therapy. However, only a small proportion of patients is eligible for laser treatment. ***(Bressler et. al., 1987)***

Laser treatment is less suitable for certain subfoveal lesions because the laser beam destroys the overlying retina and causes immediate and permanent loss of visual acuity. Since photodynamic therapy induces selective occlusion of choroidal neovascularity through light induced pharmacological thrombosis without any damage to the retina in the macular area. Pilot studies have demonstrated complete occlusion of choroidal neovascularity with subsequent restoration of retinal function. Even repeated application was not associated with any alteration of photoreceptor layer. ***(Schmidt- Erfurth, 1998)***

# ANATOMY AND PATHOPHYSIOLOGY OF AGE-RELATED MACULAR DEGENERATION