Rigiscan and Patient Monitored Comparative Efficacy of Continuous Use of Short and Long acting Phosphodiesterase Inhibitors in Arteriogenic Erectile Dysfunction

Thesis

Submitted for Partial Fulfillment of Master Degree in Dermatology, Venereology and Andrology

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2011

المقارنة بين أثر الاستخدام المستمر لمثبطات الفوسفوديستراز قصيرة وطويلة المفعول في ضعف الانتصاب الشرياني عن طريق رصد المريض و جهاز الريجيسكان

رسالة

توطئة للحصول على درجة الماجستير في ألأمراض الجلدية والتناسلية وأمراض الذكورة

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Summary

Erectile dysfunction is defined as the consistent or recurrent inability to attain and/or maintain an erection sufficient for a satisfactory sexual intercourse.

Erectile dysfunction does not only affect men's sex life, but also significantly affects their overall satisfaction with life in general and it has a notable impact on the quality of life of patients and their partners.

Erectile dysfunction is correlated with age; in Egypt it has 26% prevalence at the age of 50 years, 49% prevalence at the age of 60 years and 52% prevalence at the age of 70 years or older. ED can be classified as psychogenic, organic (vascular, diabetic, drug-induced, traumatic, neurogenic and hormonal) or mixed psychogenic and organic.

The International Index of Erectile Function (IIEF) has been shown to be a cross-culturally and psychometrically valid measure of male erectile dysfunction.

Rigiscan device is one of the most reliable tests commonly used to monitor penile rigidity and tumescence. It consists of two loops, one placed around the base of the penis and the other at the tip of the penis, proximal to the coronal sulcus, as well as a recording unit that is strapped to the patient's thigh.

Trials in which PDE5 inhibitors were used to treat ED have mostly involved use of the drug in an on-demand schedule

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وَقَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنتَ الْعَلِيمُ
الْحَكِيمُ

صدق الله العظيم

سورة البقرة الآية
(٣٢)

Acknowledgment

*First of all, thanks to **Allah** the most merciful for giving me the strength to complete this work.*

*I wish to express my deepest thanks and respect to **Prof. Dr. Adel Ahmed Halim Emam,** Chairman and Professor of Dermatology, Venereology and Andrology,, Faculty of Medicine, Ain Shams University, for his valuable supervision, guidance and kind advice throughout this work.*

*Special thanks and deepest gratitude to **Prof. Dr. Samar Abdallah Mohamed Salem,** Professor of Dermatology, Venereology and Andrology, Faculty of Medicine, Ain Shams University, for her good support, continuous supervision and unlimited help during this work.*

*I would like to express my gratitude and appreciation to **Dr. Diaa Eldine Darwish,** Consultant and Chairman of Dermatology, Venereology and Andrology, Elmatariya Teaching Hospital, for his sincere scientific and moral help.*

Ahmed Mohsen

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List of Abbreviations

>	More than
<	Less than
≥	More than or equal
%	Percent
α	Alpha
β	Beta
µg	Micro gram
ACEIs	Angiotensin converting enzyme inhibitors
B-mode	Brightness modulation
BPH	Benign prostatic hyperplasia
BSM	Bulbospongiosus muscle
Ca2+	Calcium ion
cAMP	Cyclic adenosine mono-phosphate
CBC	Complete blood count
CC	Corpora cavernosa
CCB	Calcium channel blockers
cGMP	Cyclic guanosine mono-phosphate
C_{max}	Maximum plasma concentration
CNS	Central nervous system
CS	Corpus spongiosum
D_1/D_2	Dopaminergic receptors
DICC	Dynamic infusion pharmacocavernosometry and cavernosography
DM	Diabetes mellitus
ED	Erectile Dysfunction
EDV	End diastolic velocity

EF	Erectile function
e.g	For example
EHNA	Erythro-9-2-hydroxy-3-nonyl adenine
FDA	Food and Drug Administration
Fig	Figure
H	Hour
H2	Histamine receptor type 2
Hg	Mercury
HS	Highly significant
HTN	Hypertension
IBMX	3-isobutyl-1-methylxanthine
ICI	Intracavernosal injection
ICM	Ischiocavernosus muscle
ICP	Intracavernosal pressure
IIEF	International Index of Erectile Function
K^+	Potassium ion
LH	Luteinizing hormone
LUTS	Lower urinary tract symptoms
MAOI	Monoamine oxidase inhibitors
Mg	Milligram
MHZ	Mega Hertz
Ml	Milliliter
Mm	Millimeter
MRI	Magnetic resonance imaging
MUSE	Medicated urethral system for erection
NO	Nitric oxide
NPT	Nocturnal penile tumescence

NS	Non significant
PBI	Penile brachial index
PDEs	Phosphodiesterases
PE	Premature ejaculation
PET	Positron emission tomography
PG	Prostaglandin
PPUD	Pharmaco penile duplex ultrasound
P/R	Per rectum
PSV	Peak systolic velocity
r	Pearson correlation coefficient
RAU	Rigidity activity unit
REM	Rapid eye movement
RI	Resistive index
S	Significant
Sec	Second (unit of time)
SIEDY	Structured Interview on Erectile Dysfunction
Sis	Structured interviews
SLx-2101	Surface Logix-2101
SRQs	Self-reported questionnaires
SSRI	Selective serotonine reuptake inhibitors
TAU	Tumescence activity unit
$T_{1/2}$	Time required for elimination of one-half of drug
T_{max}	Time required for attaining maximum plasma concentration
Tum	Tumescence
USA	United States of America

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