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التوثيق الالكتروني والميكروفيلم



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# Study of the Possible Effects of Repeated Intracorporeal Self Injection Therapy on the Diameter and the Peak Systolic Velocity of the Cavernosal arteries.

#### **Thesis**

Submitted for partial fulfillment of the Master degree (M.Sc.) in **Dermatology, Andrology & S.T.Ds** 

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#### محضر اجتماع لجنة الحكم على الرسالة

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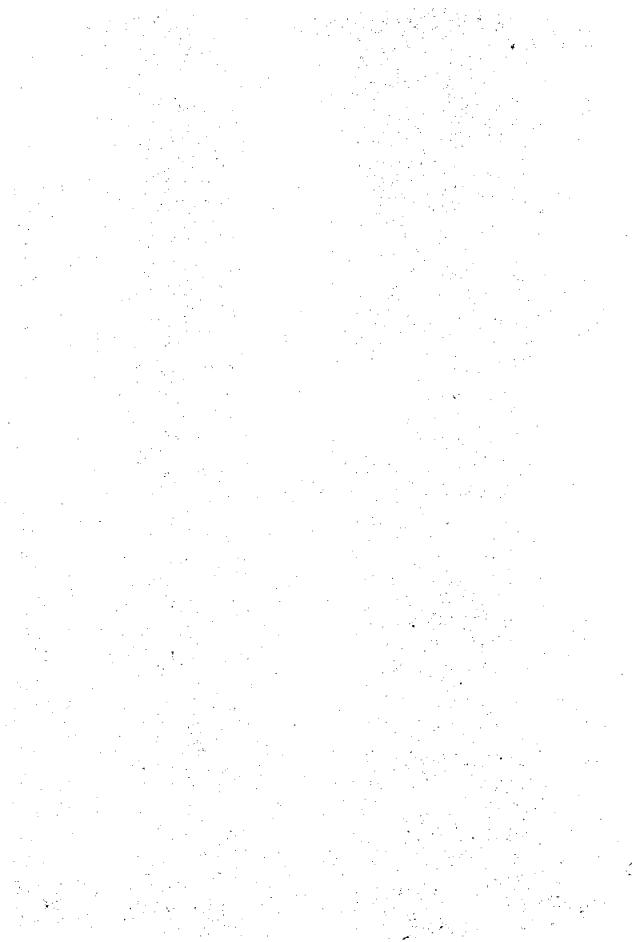
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#### **Abstract**

The aim of this work is to evaluate the effect of repeated intracavernosal self-injection on the peak systolic velocity and the diameter of cavernosal arteries using pharmacopenile duplex ultrasonography (PPDU).

This study was carried out on thirty patients complaining of erectile dysfunction recruited from Andrology clinic, Kasr El Aini hospital, Cairo University who were positive responders to intracavernosal injection, their age ranged between 32 and 65 years, nine of them were smokers, eleven of them were diabetic, twenty four of them received bimix and seven received quadmix for IC self injection.

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Duplex evaluation was performed to the patients on self injection therapy for comparison of peak systolic velocity and cavernosal artery diameter before and after finishing the ten doses of IC self injection.

According to color duplex ultrasonography, there was significant increase in the diameter and peak flow velocity of the cavernosal arteries after ten doses of repeated IC self injection therapy in comparison to it before starting the treatment course.

**Key Words**: erectile dysfunction, duplex ultrasound, cavernosal arteries, peak systolic velocity, repeated intracorporeal self injection..

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#### Introduction

Erectile Dysfunction is defined as the inability to attain or maintain an erection sufficient for sexual activity (National institute of the health, 1993). Erectile Dysfunction is the most common presenting symptom in men attending male sexual health clinics. It is reported that 40 % of men in their fifth decade are impotent, a figure rising to 66 % at their seventh decade (Feldman and Goldstein, 1994).

The era of intracavernosal pharmacotherapy for the diagnosis and treatment of erectile dysfunction began with the pioneer report of (Virag, 1982) dating the first pharmacologically induced penile erection. In this year Virag introduced papaverine as a substance used in the treatment of erectile dysfunction through injecting it intracavernosally (Virag, 1982). Following this event, many substances were introduced for the treatment of erectile dysfunction e.g. phentolamine, prostaglandin E1 and vasoactive intestinal peptide (Porst, 1994).

The intracavernosal injection (ICI) is also used as a preliminary step in vascular investigations as pharmacopenile duplex ultrasonography (PPDU) (Benson 1990), which is a minimally invasive technique used to diagnose vasculogenic erectile dysfunction (Broderick, 1998).