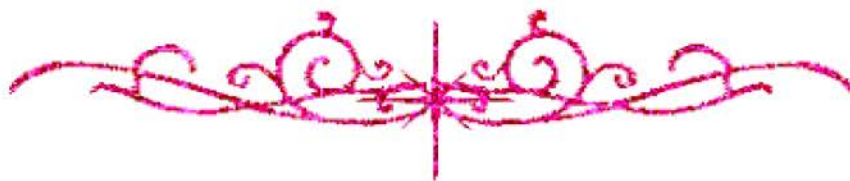


# بسم الله الرحمن الرحيم





# شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

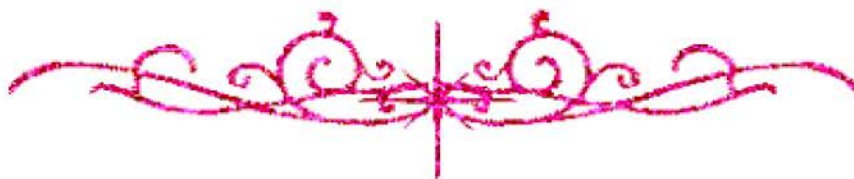
## قسم

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



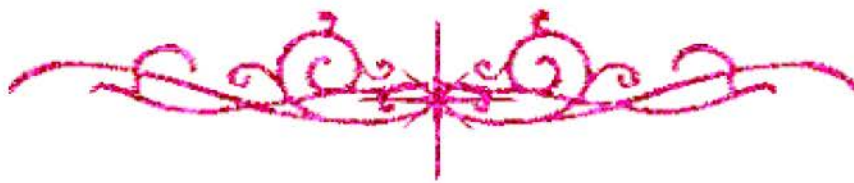
## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار





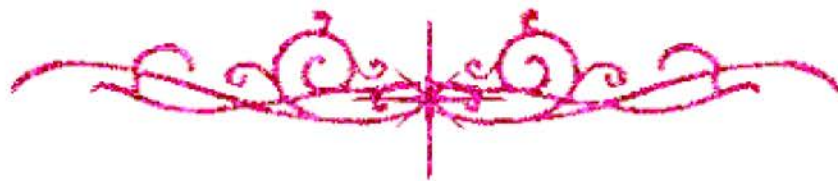
# بعض الوثائق الأصلية تالفة







بالرسالة صفحات  
لم ترد بالأصل



# **A Prospective Study for Metroplant ( Levonorgestrel Releasing Intrauterine System ) As A Contraceptive**

*A Thesis*

Submitted For Partial Fulfillment for the Degree Of  
M.D. Obstetric & Gynecology

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# **I- INTRODUCTION**



## **Introduction**

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Clinical experiences & research have shown that hormonal contraceptives have beneficial effect on health user. These benefits include reduced amount of menstrual bleeding, protection against pelvic infection and ectopic pregnancy.

However oral contraceptives cause problems other than the widely published medical side effects. Recent trials have shown that oral contraceptives produce a failure rate higher than expected, particularly in young women with low motivation for contraception and that the continuation rate of oral contraceptive is low even in USA (*Luukkainen et al., 1993*).

The second reversible contraceptive method, the intrauterine device (IUD), has been shown to have continuation rate higher than that for oral contraceptives.

The basic problems with this method are the increased amount of bleeding, pain and increased risk of pelvic infection .So, development of Levonorgestrel releasing IUDs was initiated to eliminate some of the problems of oral contraceptives & IUD and retain some of the benefits of both methods (*Luukkainen et al., 1990*).

the intrauterine device induced uterine bleeding is one of the major side effects of IUDs. It involves increased menstrual



## Introduction

blood loss, Inter menstrual bleeding and prolonged duration of menstrual period (*Hatcher et al., 1994*).

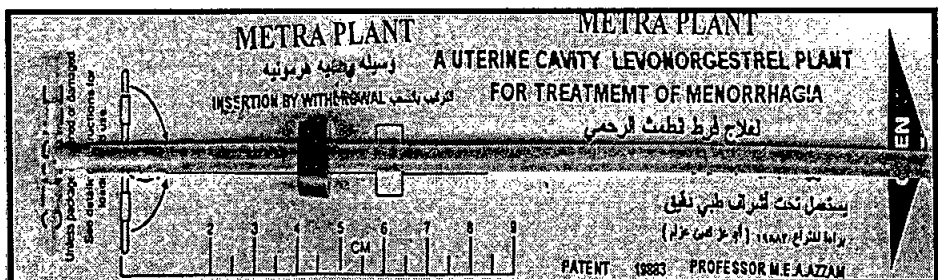
The Levonorgestrel releasing intrauterine system (LNG-IUS) liberating 20 microgram Levonorgestrel / day has been developed by Leiras pharmaceuticals, Turku, Finland (1990) and received licensing approval in U.K. in May 1995, initially licensed for 3 years, then extended to five years (*Sturridge & Guillebaud, 1997*).

**Metraplant**, is a local modification of the original Levonorgestrel releasing IUS, has been made by Azzam in 1994.

It has double the surface area of the original LNG - IUD & 50 % of the Levonorgestrel concentration. It releases about 20 microgram / day for a period of five years.

While it was developed primarily as contraception, its role in managing heavy , painful menstruation and the symptoms of climacteric may eventually be important.

(*Coleman et al., 1997*).



***Fig (1): Metraplant (LNG – IUS)***