

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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بالرسالة صفحات
لم ترد بالأصل



**Effect of Nitric Oxide Donors on Uterine and
Subendometrial Blood Flow in Patients with
Unexplained Infertility
A Randomized Controlled Trial**

A Thesis

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List of Abbreviations

<i>Abbr.</i>	<i>Full-term</i>
3D	: Three-dimensional
AIs	: Aromatase inhibitors
ASRM	: American Society of Reproductive Medicine
CC	: Clomiphene citrate
COX	: Cyclo-oxygenase
ET	: Endothelin
FI	: Flow index
FSH	: Follicle-stimulating hormone
hCG	: Human chorionic gonadotropin
ICI	: Intracervical insemination
IUI	: Intrauterine insemination
IVF	: In vitro fertilization
LH	: Luteinizing hormone
MH	: Mullarian hormone
NBT	: Nitroblue tetrazolium
NIH	: National Institutes of Health
NO	: Nitric oxide
NOS	: NO-synthetase
NSAIDs	: Non-steroidal anti-inflammatory drugs
PCOS	: Polycystic ovarian syndrome
PCR	: Polymerase chain reaction

PI	: Pulsatility index
RI	: Resistance index
ROC	: Receiver operating characteristic
SOD	: Superoxide dismutase
SPSS	: Statistical package for social science
VEGF	: Vascular epithelial growth factor
VFI	: Vascular flow index
VI	: Vascular index

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Introduction

Unexplained infertility has been defined, by the Practice Committee of the American Society of Reproductive Medicine (ASRM), as inability of a couple to conceive for at least 12 months, with unremarkable standard infertility evaluation ((ASRM), 2006). Although estimates vary, the prevalence of unexplained infertility is approximately 15–30% (*ASRM, 2006*).

Embryo implantation, a unique biological phenomenon, represents the most critical step of the reproductive process in humans. Successful implantation requires a receptive endometrium, a normal and functional embryo at the blastocyst developmental stage and a synchronized dialogue between maternal and embryonic tissues (*Simon et al., 2000*).

The endometrium is receptive to blastocyst implantation during a spatially and temporally restricted window, called the implantation window. In humans, this period begins 6–10 days after the LH surge and lasts for nearly 48 h (*Simon et al., 2000*).

Local angiogenesis was shown to be an essential prerequisite for implantation and gestation (*Kupesic et al., 2001*). Several diagnostic tools have been proposed to “measure” or “estimate” the endometrial receptivity. These tools included sonographic measures (endometrial thickness as well as uterine