

**THE RELATION BETWEEN FOLLICULAR FLUID
INSULIN-LIKE GROWTH FACTOR – II (IGF –
II), AND OOCYTE MATURATION AND EMBRYO
DEVELOPMENT IN INTRACYTOPLASMIC
SPERM INJECTION (ICSI) CYCLES**

Protocol of Thesis

**Submitted for Partial Fulfillment of Master Degree in
Obstetrics and Gynecology**

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العلاقة بين عامل النمو المشابه للإنسولين - ٢
في السائل الحويصلي ونضج البويضة وتطور
الجنين في حالات الحقن المجهري

بروتوكول رسالة مقدمة من

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List of Abbreviations

ALS	: Acid Labial Subunit
BMI	: Body Mass Index
BP-Pr	: Insulin Like Growth Factor Binding Protein Proteases
c-AMP	: Cyclic Adenosine Monophosphate
CC	: Clamiphene Citrate
CGH	: Comparative Genomic Hybridization
CTET	: Clinical Touch Embryo Transfer
DOI	: Duration Of Infertility
ET	: Embryo Transfer
FSH	: Follicle Stimulating Hormone
GH	: Growth Hormone
GnRHa	: Gonadotropin Releasing Hormone Agonist
GV	: Germinal Vesical
HCG	: Human Chorionic Gonadotropin
HMG	: Human Menopausal Gonadotropin
ICSI	: Intracytoplasmic Sperm Injection
IGF	: Insulin Like Growth Factor
IGF-I-R	: Type 1 IGF receptor
IGFBP	: Insulin Like Growth Factor Binding Protein
IGFB-RP	: Insulin Like Growth Factor Binding Protein related proteins

List of Abbreviations

IVF	: In Vitro Fertilization
Kg	: Kilogram
LH	: Luteinizing Hormone
M	: Meters
MESA	: Microsurgical Epididymal Sperm Aspiration
MMPs	: Matrix Metalloproteinase
m-RNA	: Messenger Ribonucleic Acid
OHSS	: Ovarian Hyperstimulation Syndrome
OMI	: Oocyte Maturation Inhibitor
OPU	: Ovum Pick Up
PB	: Polar Body
PCO	: PolyCystic Ovary
PGD	: Preimplantation genetic diagnosis
PTH	: Para Thyroid Hormone
PZD	: Partial Zonal Dissection
SD	: Standard Deviation
SUZI	: Sub Zonal Insemination
TGF-β	: Transforming Growth Factor Beta
TESE	: Testicular Sperm Extraction
UGET	: Ultrasound Guided Embryo Transfer
ZP	: Zona Pellucida

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Introduction

Infertility by itself doesn't threaten physical health but has a strong impact on psychological and social well being of couples (*Ashkani et al., 2006*).

Louise Brown, the first baby conceived in after IVF, was born on 25 July 1978 and turned 28 last year. From one perspective, her birth can be seen as the culmination of 300 years of medical and scientific investigation aimed at understanding the fascinating process of reproduction (*Clarke, 2006*).

In those who have no identifiable or correctable causes, ICSI provides new hope for couples with male infertility who, in the past, could only choose among therapeutic donor insemination, adoption or voluntary childlessness (*Chow and Cheung, 2006*).

Intracytoplasmic sperm injection can be used successfully to treat couples with male factor infertility and those who have failed standard IVF. Precisely adapted protocol of ovarian hyperstimulation for every patient could diminish the costs of treatment without negative influence on ICSI results (*Kuczynski et al., 2001*).