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بالرسالة صفحات

لم ترد بالأصل

OUTCOME OF IN VITRO FERTILIZATION AND EMBRYO TRANSFER (IVF-ET) IN NONE- MALE FACTOR OF INFERTILITY

Thesis submitted in partial fulfillment of the requirements of M.D Degree
in Obstetrics and Gynecology

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لِلَّهِ مَلِكُ السَّمَوَاتِ وَالْأَرْضِ ۚ فِي خَلْقِ
مَا يَشَاءُ يَهْدِي لِمَنْ يَشَاءُ أَنْتَا
وَيَهْدِي لِمَنْ يَشَاءُ الذُّكُورَ ۖ أَوْ
يُزَوِّجُهُمْ ذُكْرَانًا وَانثَىٰ ۚ وَيَجْعَلُ
مَنْ يَشَاءُ عَاقِبَتَهُمَا ۚ إِنَّهُ عَلِيمٌ قَدِيرٌ ۖ

(سورة الشورى: آية ٤٩، ٥٠)

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List of abbreviations

ART	Assisted reproductive technology
CC	Clomiphene citrate
COH	Controlled ovarian hyperstimulation
DES	Diethylstilbestrol
DHEA-S	Dehydroepiandrosterone sulfate
ET	Embryo transfer
FSH	Follicle stimulating hormone
GH	Growth hormone
GnRH	Gonadotropin releasing hormone
GnRH-a	Gonadotropin releasing hormone agonist
GV	Germinal vesicle
HCG	Human chorionic gonadotropin
HEPES	Hydroxyethylpiperazine-N-2-ethanesulfonic acid
HMG	Human menopausal gonadotropin
HSG	Hysterosalpingography
IGF-1	Insulin-like growth factor 1
IVF	In-vitro fertilization
IVF-ET	In-vitro fertilization – Embryo transfer
LH	Luteinizing hormone
LUF	Luteinized unruptured follicle
OCC	Oocyte-cumulus complex
OHSS	Ovarian hyperstimulation syndrome
PCO	Polycystic ovary
PCOD	Polycystic ovarian disease
PCT	Post-coital test
TVS	Transvaginal sonography
WHO	World Health Organization
β -hCG	Beta-human chorionic gonadotropin
GIFT	Gamete intrafallopian transfer
LUF	Luteinized Unruptured Follicle
T	Testosterone
IGFBPs	Insulin like growth factor
I-LH	Immunoactive leutinizing hormone
B-LH	Bioactive leutinizing hormone
FAI	Free androgen index
HOS	Hypo-osmotic swelling test
SpA	Sperm antibodies
IZA	Intact zona-binding assay
HZA	Hemizona assay
Ck-M	Creatinine kinase *

PFPG	Peritoneal fluid prostaglandin
IL-1	Interleukin-1
IU	International unit
CA 125*	
US	Ultrasonography
TYB	Test-yolk buffer
PN	Pronuclear
Vs.	Versus
μg	Microgram
≥	More than or equal
>	More than
<	Less than

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Introduction

Introduction

In vitro fertilization is a relatively recent evolution in the human subject aiming to overcome human infertility problems not responding to other forms of treatments. The process of in vitro fertilization is the fusion of an instrumentally recovered human oocyte with a spermatozoon in a culture dish to form an embryo (*Trounson and Wood, 1984*).

In vitro fertilization was initially proposed for those patients with extensive tubal damage (*Steptoe and Edwards, 1978*). They reported the birth of the first living child conceived in vitro. Louise Brown's birth on July 25, 1978; the first baby resulting from IVF/ET; was a landmark in the treatment of infertility and heralded the beginning of a new era in reproductive medicine. The delivery of the first Egyptian IVF/ET baby, Heba, on 8 July 1987 was announced by the Egyptian group, thus opening a new era in the management of infertility in Egyptian females (*Mansour et al., 1988*).

Since that time many centers described pregnancies established through these techniques and many infants were subsequently delivered. However, the technique of IVF involves many complex stages, e.g. ovarian stimulation, laparoscopic or ultrasonic oocyte pick up, these steps need skilled personnel (*Robertson, 1996*).

The fertilization of an egg by a sperm is one of the greatest wonders of nature, an event in which magnificently small fragments of animal life are driven by cosmic forces toward their appointed end, the growth of a living being. As a spectacle, it can be compared only with an eclipse of the sun, or the eruption of a volcano (*Gosden et al., 2002*) the ability to produce human life by in vitro fertilization (IVF) was the subject of fantasy

and elaborate discussion long before it become possible. Moral and ethical considerations were debated independent of the scientific advances that resulted in the birth of Louise Brown, the first human offspring born after extracorporeal fertilization and uterine transfer of cleaving embryo.

Some of the new techniques that utilize IVF have raised legal, moral and ethical dilemmas for the infertile couple, the treating professionals, and the community in general. Therefore, it is not surprising that the evaluation of the psychologic and psychosocial issues surrounding IVF was given legitimate status from the beginning of the use of this technology. The psychologic aspects of IVF are a result of emotional, financial, and physical demands of the program as well as the legal ethical and moral pressures from the community (*Serour, 2000*).

IVF couples generally enter the program after a long history of sophisticated infertility treatment, and often find themselves overwhelmed by the psychological demands of the protocol (*Jones, 1988*).

The increased optimism that accompanies this new technology, the probability of intense disappointment if the treatment is unsuccessful, and the finality as the end of the line aspect of IVF implies, make this a very stressful program for couples involved. For the same reason, the health care professionals involved in IVF are also subjected to psychological stress. They must make decisions based on very little information about the short and long term effect of this medical therapy (*Liebaers et al., 2002*). They are consistently scrutinized by their patients and peers, and constantly straddle the fence between hope of new treatment for their patients and accusations of immorality and unethical experimentation. They often form close collaborative working relationships with the patients and may have difficulty dealing emotionally with the high proportion of unsuccessful cases (*Machelle et al., 1982*).

Aim of work