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RESEARCH ARTICLE

Statistical study of some women infertility causes within Baghdad city

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Abstract

Objective: To determined most causes of infertility in women within Baghdad city

Design: A cross sectional descriptive study.

Setting: Kamal Alsamraee Infertility Ireatment and *In Vitro* Fertilization Hospital

Patients: 110 infertile women were divided into 3 age groups (15-25, 25-35, 35-45) years old, their husbands have normal sexual status, all medical information collected from private register of each one.

Result: the characteristics of women recruited, showed that 40.9% of them were 25- 35 years old, 36.3% of them were overweight. The most causes of infertility were related to ovulated failure 68.2%, while unknown causes 20% and the dysfunction of Fallopian tube came finally in 11.8% percent.

Conclusions: The main causes of female infertility are the problems of ovulated failure, the Fallopian tubes disorders and other unknown causes

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Introduction:

Procreation and rising of children are extremely important events in every human's life and are strongly associated with the ultimate goals of completeness, happiness and family integration. Infertility is defined as the inability of getting pregnant after trying for at least 6 months or one year, for women over 35 years old, without use of birth control means and while having normal sexual intercourse (1). In the last thirty years, Iraq exposed several instability crises causes aggravation in many health problems one of these problems was the fertility status in many people in all of country (2). Few studies deal with this health problem in spite of the psychological, social and economic dimensions of this topic. Local epidemiological studies in this field focused on the microbial infections of infertility (3, 4). Baghdad have a greater population rate among other Iraqi governorates 24.1% but the population growth percent is low as a compared with other governorates 2.3% (5). The incidence of infertility is associated with geographic differences. For example, the women who sought Kamal Alsamraee infertility hospital from Northern and southern regions record higher rate of infertility than middle region. Many factors can change a woman's ability to have a baby these include age, smoking, stress, excess alcohol use, poor diet, athletic training, overweight or underweight, sexually transmitted infections (STIs), health problems connected with hormonal changes, such as polycystic ovarian syndrome and primary ovarian insufficiency (6). There are several medical disorders associated with female infertility that also play a role in the development of sexual dysfunction like polycystic ovary syndrome (PCOS) which is the most common cause of an ovulation in the infertile females. Premature ovarian failure (POF) (7), uterine fibroids (8) as well as hormone disorders (HD).

According to recent studies by the World Health Organization (WHO), approximately 8-10% of couples are facing some kind of infertility problem. Globally, this means that 50-80 million people are facing the problem of getting an integrated family. In the USA, approximately 5 million people have infertility problems, while in Europe the incidence is estimated around 14%. The incidence of infertility is associated with geographic differences. For example, in some west-African communities infertility rate is around 50%, while in some western European countries is 12%. Likewise, differences are observed both in developed countries, where rates range from 3.5% to 16.7%, as well as in less developed countries, where rates of infertility range from 6.9% to 9.3%. It has also been

observed that the causes are related to geographical differences. Especially in Western countries, the most common risk factor of infertility is age, while in Africa is sexually transmitted diseases.¹⁻⁴ Infertility is defined as the inability of getting pregnant after trying for at least 6 months or one year, for women over 35 years old, without use of birth control means and while having normal sexual intercourse. Assisted reproduction includes all the methods used for fertilization, which is not achieved through sexual intercourse. In the past, people had little control over their fertility and couples that could not get a child had no other choice but to accept the fact. In contrast, although today infertility is a relatively common problem that touches deeply the soul of couples involved in this, medical science has increased the chances of giving solutions to the problem with the Assisted Reproduction. The first successful fertilization of human eggs in the laboratory was in 1978. The fact of the first child-birth by this process was a real milestone because it gave hope to the infertile couples as it offered a possible solution to the problem. Furthermore, in the

Materials and methods:

Approvals:

All necessary approvals were getting from the Ministry of Health / Training and Development Center to get the requisite information to accomplish the research.

Questionnaire:

The present study carried out for the period from March 2010 till March 2011 by designing a questionnaire form included 34 items such as age, residency, education, occupation and other information, the current study included 1500 infertile women 768 their spouses have problems with their fertility status, 622 of them suffered from recurring pregnancy and abortion, only 110 of 1500 never get pregnant throughout their married life and their husbands have normal sexual status and didn't suffer from any disorder. Infertile women age ranged between 15-45 years, the causes of infertility evaluated by venereologist. That was diagnosed after clinical and laboratory tests.

Statistical analyses:

Descriptive statistical analysis procedures (frequency, percentage) were employed for the data analysis by using SPSS version 16.

Results:

The studied samples include 110 married infertile women. Divided into three age groups, 40.9% belong to 25-35 years old, 34.5% were 15-25 years old, 24.5% were 35-45 years old. Regarding to period of married 9.1 % of 110 women one year married period, 40.9% three years, 50% more than three years, according to educational status 10.9% of 110 were not have any educational while 24.5% have primary education level 34.5% have secondary while graduated education was 30.1% of total percent. 33.6% of women from Baghdad, 39.1% from Northern and 27.3% of women from Southern governorates, the most studied cases came from town 68.2% while rural patients reach to 31.8% as shown in table 1. Many factors play an important role in female fertility like standard of living, educational level, life style, body weight but in our study we didn't find correlation between these factors and infertility in women (8, 9 and 10).

Table 1: Distribution of the sample- study according to the demographic characteristics

Status	Number	Percent %
Period of married		
1 year	10	9.1
3years	45	40.9
<3 years	55	50
Age group		
15-25	38	34.5
25-35	45	40.9
35-45	27	24.5
education		
Illiterate	12	10.9
Primary	27	24.5
Secondary	38	34.5
Graduated	33	30.1
Occupation		
Housewife	57	51.8
Employee	53	48.2
Husband alcohol taking		
Drinker	22	20
in drinker22	88	80
Residence		
Town	75	68.2
Rural	35	31.8
geographic differences		
Northern	43	39.1
Baghdad	37	33.6
Southern	30	27.3
Feeding type		
Vegetarian	-	-
Mixed	110	100
Meaty	-	-

Table 2 shows the most causes of infertility were ovulated failure which record 68.8% this cause take many shapes, like hormone problems 41.3%, scarred ovaries 4%, premature menopause 6%, polycystic ovary syndrome 33.33% and follicle problems 14.6% .while unknown causes came in the second order in percent 22% and the dysfunction of Fallopian tube came finally in percent 11.8% this results was agreement with the study of Roupia and others and Gladys when they inspected the infertility causes in the women at reproductive age (11, 12).

Table (2): Causes of infertility according to medical diagnoses

Causes	Number	Percentage %
Ovulated failure	75	68.2
• Hormonal problems	31	41.3
• Scarred ovaries	3	4
• Premature menopause	5	6
• Poly cystic ovaries	25	33.33
• Follicle problems	11	14.6
Unknown causes	22	20
Dysfunction of fallopian tube	13	11.8

Discussion:

The infertility in Iraq cannot be considered health problem related with the deforming of uterus or infections of Fallopian tube but have many dimensions like environmental causes, social causes economical causes and others (13, 14). Before 2003 many Iraqis subsisted under poor line (less than 2 USD/ day) hundreds of new born and infants under 5 years died due to malnutrition and lack of simple health care. Many males and females in reproductive age unable to married due to privations that led to high average age of married which is fastened that important cause of infertility in addition to many males hurled in wars and exposed to different types of chemicals, weapons which causes negatively on fertile status (15, 16). After 2003 the Iraqi environment suffered from many profanation as result of the first, second and third gulf war's 1980-1988, 1991 and 2003, thousands tons of bombs and weapons were dropped. Large amount of chemicals and radioactive material was stolen and destroyed from uneducated peoples and causes many injuries and deaths cases between them, the saved of them infected with cancer or become infertile or beget deformed child. Huge amounts of waste water thrown to the rivers without treatment beside of weak and retreat in water treatment stations, large quantities of lead from car and electrical generators exhausts were emitted to the air, thousands of tons of medical wastes result from hospitals and health care centers subtracts to the environment without treated or dumped in illegal dumps all of these and other causes led to ascending in the infertility in females as well as males but the females more sensitive to environmental variations because her hormonal system is enriched than identical one of males, and her average weight less than male that's ed her affected in small dose of pollutants than male.

Recommendation:

The study recommends that the fertility centers in Iraq should include instructional program about diagnosis and therapeutic intervention for infertility to increase awareness of infertile women regarding diagnostic and therapeutic intervention for infertility.

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