

SPONTANEOUS PREGNANCY IN INFERTILE PATIENTS BOOKED FOR AL AZHAR ART (AZHART) PROGRAM

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ABSTRACT

Objectives : To determine the incidence of spontaneous pregnancy in women who were not undergoing therapy, while waiting for their inclusion in the AZHART program.

Design : Retrospective descriptive analytical study, reviewing patient's records through the period of one year June 2003-May 2004.

Setting : The ART unit in the International Islamic Center for Population Studies and Research, (IICPSR) Al-Azhar University (AZHART).

Patients : Out of 643 patients booked for ART programs at AZHART, sixteen patients (2.5%) got pregnant while they were waiting to start their treatment.

Intervention : β -HCG pregnancy test and pelvic sonography for those patients who missed their period for two or more weeks.

Main outcome measure(s) : Spontaneous pregnancy. Women who conceived spontaneously during the waiting period were statistically analyzed and compared in terms of their age, duration and type of infertility, previous reproductive history and indication of treatment at the time of booking.

Results : The mean age of women was 30.4 ± 4.57 . 75% were primary infertility and 25% secondary infertility. the mean duration of infertility was 8.5 ± 4.1 . Causes of infertility were 37.5% male factor, 25% female factor and 37.5% unexplained. Seven couples (43.7%) have had experienced unsuccessful previous ART attempts.

Conclusion : The rather rare possibility of spontaneous conception should not be excluded in patients with unexplained infertility and mild-moderate male and female factors infertility scheduled for ART program. The impact of psychological passionate counseling for stress relief of the infertile couple could be of value in achieving pregnancy in these patients.

Keywords : spontaneous pregnancy, waiting period, ART program.

INTRODUCTION

Pregnancy occurs frequently in couples who have been diagnosed as infertile but who either did not receive treatment or have stopped treatment⁽¹⁾. In this context, one of many unanswered questions

is that of spontaneous pregnancies in couples who have tried in vitro fertilization (IVF) or intracytoplasmic sperm injection (ICSI) and failed to get pregnant⁽²⁾.

Data on treatment-independent pregnancies are limited and are based mainly on small series.

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Moreover, the influence of various demographic and biological prognostic factors yet has not been assessed⁽²⁾. A stress relief effect has been suggested to exist in patients on the waiting list for fertility treatment⁽³⁾.

This article reports a retrospective descriptive analytical study to detect the rate of spontaneous pregnancy in couples who were not actively undergoing therapy, while waiting to be included in ART program.

PATIENTS & METHODS

Retrospective descriptive analytical study, reviewing the records of 643 patients and was carried out in the ART unit in (IICPSR) throughout the period June 2003-May 2004.

Sixteen infertile patients got a spontaneous pregnancy out of 643 patients while waiting to be included in the ART program. Pregnancy was confirmed by β -HCG level assessment and ultrasonographically demonstrable viable pregnancy sac. The age of these patients varied between 18-36 years.

All the cases have had normal external and internal genital findings. Both tubes were normal, except one patient with moderate peritubal adhesions as assessed by laparoscopy.

Body Mass index (BMI) was estimated in two

occasions during the waiting period. Duration of infertility ranged from 5-13 years. Basal hormonal profile, follicular Stimulating Hormone (FSH), Luteinizing hormone (LH), Prolactin and serum Estradiol were all within normal levels.

All data were tabulated and statistically analyzed using a descriptive analytical statistical technique.

RESULTS

This Study included 16 patients (2.5%) who got pregnant spontaneously during the booking period of one year for ART program, out of a total of 643 couples examined in our unit within the same period.

The age of the patients ranged from 18 to 36 with a mean age of 30.4 ± 4.57 years. Period of infertility ranged from 1.5 to 13 years with a mean age of 8.5 ± 4.1 years. 12 patients (75%) presented with primary infertility and 4 patients (25%) with secondary infertility. Six patients (37.2%) with male factor, four patients (25%) due to female factor and six patients (37.5%) with unexplained infertility. Seven couples (43.7%) have had experienced unsuccessful previous ART attempts (table I and II). Table III, shows the mean hormone levels, semen parameters and BMI in two occasions during waiting period. Table IV, shows the outcome of spontaneous pregnancy in these patients.

Table I : Distribution of the cases according to age, duration of infertility and time of onset of pregnancy in 16 spontaneously pregnant patients.

Characteristics	Range	Mean \pm SD
Age (years)	18 - 36 year	30.4 ± 4.57
Period of infertility (years)	1.5 - 13 year	8.5 ± 4.1
Period between 1st. visit & occurrence of Pregnancy (months)	2 - 11 Months	5 ± 2.61

Table II : Distribution of the cases according to the type of infertility.

Type of infertility	Primary	Secondary	Total
Unexplained	5	1	6 (37.5 %)
Male factor	4	2	6 (37.5 %)
Ovulatory factor	2	0	2 (12.5 %)
Tubal factor	1	1	2 (12.5 %)
Total	12 (75 %)	4 (25 %)	16 (100 %)

Table III : Distribution of the cases according to their hormone levels, semen parameters and BMI on two occasions of the study group.

	(First) mean \pm SD	(Second) mean \pm SD
FSH	5.86 \pm 2.25	6.47 \pm 2.19
LH	5.40 \pm 2.46	4.76 \pm 2.0
PRL	14.35 \pm 7.30	16.37 \pm 19.97
E2	78.84 \pm 62.57	67.25 \pm 39.39
Sperm count / ml	28.90 \pm 5.46	27.90 \pm 20.75
Sperm motility %	56.0 \pm 20.01	55.0 \pm 17.63
Abnormal forms %	37.8 \pm 19.95	35.5 \pm 17.39
BMI	29.3 \pm 3.99	27.4 \pm 3.33

Table IV : Distribution of the cases by their outcome.

Outcome	No
Delivery	1
2nd trimester ongoing pregnancy	8
1 st trimester ongoing pregnancy	6
Miscarriage at 10 weeks	1

DISCUSSION

Duration of infertility is one of the most important prognostic criteria in predicting achievement of pregnancy⁽⁴⁻⁶⁾. In the present study, the duration of infertility in patients who

achieved pregnancy during the one year waiting period ranged from 1.5-13 years with a mean of 8.5 \pm 4.1 SD.

In a prospective cohort study of 2198 women, couples with unexplained infertility of less than 3 years duration had 1.49 times more chance of

spontaneous conception than couples with infertility lasting for more than 3 years (7).

In the present study, we observed a gradually increasing spontaneous pregnancy up to 11 months in agreement with published reports on spontaneous pregnancies after discontinuing IVF treatment (8,9).

Meta analysis did not show statistical difference in achieving treatment independent pregnancies between couples with male factor infertility and couples with female factor. However, treatment-independent pregnancy was more likely to occur in couples with female factor infertility(2). In the present study, no difference was observed between male factor and female factor in achievement of pregnancy in treatment- independent couples.

A stress - relief effect by good counseling in the first visit has been suggested to help in patients placed on a waiting period for fertility treatment (3). 83% of all treatment- independent pregnancies occurred within 6 months after booking for IVF program (10).

In the study group, pregnancies could be attributed to the informative counseling in the first visit and the request for optimization of female BMI which was followed by repeated weight observation and repeat Basal Hormonal profiles. Spontaneous pregnancy occurred during this waiting periods.

CONCLUSION

Spontaneous conception should not be excluded during the first visit in the ART Program or after booking the patient in ART program. The impact of psychological passionate counseling for stress relief of the infertile couple could be of great value in handling such couples, particularly in those patients with no major cause of their infertility.

Careful evaluation of infertile couples in the first visit to ART units may provide them a greater

chance of getting spontaneous conception. Reduction of body weight to optimal level may also help.

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