Psychotherapeutic Counseling and Pregnancy Rates in In Vitro Fertilization

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Purpose: *Since the Austrian propagation bill of July 1, 1992, was passed into law, Austrian physicians are committed to offer psychological counseling to women before performing assisted reproductive techniques, unless refused by the patient. The acceptance of psychotherapeutic counseling (PSITCO) and its influence on pregnancy rate were carefully reviewed.*

Methods: *The study comprised 1156 consecutive patients (mean age, 33.3 years) and 1736 in vitro fertilization (IVF) cycles. In a consent form for follicle puncture, the patients were interviewed about PSITCO as follows. Several methods of psychological support during IVF–embryo transfer treatment were offered to patients especially psychotherapy, hypnotherapy, and relaxation and physical perception exercises.*

Results: *Forty-two and three-tenths percent of patients rejected PSITCO, 17.8% had already received PSITCO, and 10.4% were willing to undergo PSITCO. The acceptance of PSITCO had no relevance on pregnancy rate. The cumulative calculation of pregnancy rates showed that up to 56.4% of women who had undergone PSITCO conceived. In patients who were planning to undergo PSITCO, the pregnancy rate was 41.9%. Concerning the cumulative pregnancy rate, this study showed that patients who accepted or underwent PSITCO had a higher pregnancy rate than those who did not avail themselves of this possibility.*

Conclusions. *These results should encourage sterility specialists to consider psychological therapy as an essential aspect of IVF. Solely a written declaration of the patient stating his/her awareness of the possibility to undergo PSITCO is, in our opinion, insufficient.*

KEY WORDS: in vitro fertilization–embryo transfer; psychotherapeutic counseling; pregnancy rate; vaginal follicle puncture.

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INTRODUCTION

Since the Austrian propagation bill of July 1, 1992, was passed into law, fertility specialists are obliged to offer psychological counseling or psychotherapeutic care to women as well as their husbands or partners, if they do not refuse the counseling (275. federal law 7, paragraph 2). In this study psychotherapeutic counseling (PSITCO) with reference to the "statute" concerning psychological counseling or psychotherapeutic care is investigated.

Compliance to PSITCO during in vitro fertilization (IVF) treatment was studied. At the Institute for Sterility Care in Vienna, prior to IVF all couples are routinely asked about their personal point of view regarding PSITCO, in the form of a so-called IVF acknowledgment. The couples are free to choose one of four answers: they either consent to PSITCO or have already undergone PSITCO; further, they have the option to refuse PSITCO or make no comment at all.

In the present study the written comments of 1156 patients in 1736 IVF cycles were studied retrospectively. These data were evaluated statistically and a link between different IVF parameters and the wish to undergo PSITCO was also examined: indications, age, number of IVF attempts [oocyte pickup (OPU) procedures], and "outcome."

MATERIALS AND METHODS

The study comprised 1156 consecutive patients (mean age, 33.3 years) and 1736 IVF cycles. In a consent form for follicle puncture, the patients were interviewed about PSITCO as follows:

- psychological counseling will be accepted,
- psychological counseling has already been received, and
- psychological counseling is refused.

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There was also the possibility to make no comment or to withhold one's opinion. The womens' and their partners' views were by no means influenced by the institute's staff.

The patients were categorized according to their statements. With regard to age, indication for IVF procedures, number of follicle punctures, and pregnancy rate, there was no significant difference between these groups in terms of statistical distribution.

The results were calculated with the statistical program STAT-View using the chi-square function (Abacus Concepts, Inc., Berkeley, CA). The indications for IVF (tube, endometriosis, male idiopathic sterility factor, and others) were related to the decision in favor of or against PSITCO. The results were statistically distributed. One to three trials as well as the fourth and subsequent attempts were given as variables.

The success of IVF was grouped as "pregnant" and "not pregnant" and termed "outcome." The outcome was evaluated in two ways: (a) after the first IVF attempt and (b) after completing all IVF attempts. Also included in the study was the cumulative pregnancy rate. This implies one pregnancy per patient regardless of the number of IVF attempts.

RESULTS

The signed declarations in favor of or against PSITCO were divided as follows:

- 10.43% of the patients at the time of inquiry wanted to receive PSITCO,
- 17.8% of the patients had undergone PSITCO previously,
- 42.34% of the patients rejected PSITCO, and
- 29.4% of the patients made no comment.

Patients who had undergone more than four IVF procedures had a better compliance toward PSITCO than those with fewer IVF attempts. By the first to third attempt, 16% of the couples had already undergone PSITCO, whereas 27.5% underwent PSITCO by the fourth and subsequent attempts. The numbers of persons who wished to have PSITCO and of those who withheld comment were equal in both groups. In couples who had undergone several IVF attempts, the rejection of PSITCO was markedly lower. (P = 0.0001) (see Fig 1).

Acceptance of PSITCO had no influence on the pregnancy rate per attempt. The cumulative pregnacy rate (Fig. 2) showed the following significant differences: 56.4% of women who had received psychological assistance before they were asked about it conceived. Among patients who agreed to psychological counseling at the time they were asked by way of the IVF consent, the pregnancy rate was at 41.9%. Among women who refused PSITCO or made no comment, the pregnancy rates were 44.3 and 39.0%, respectively.

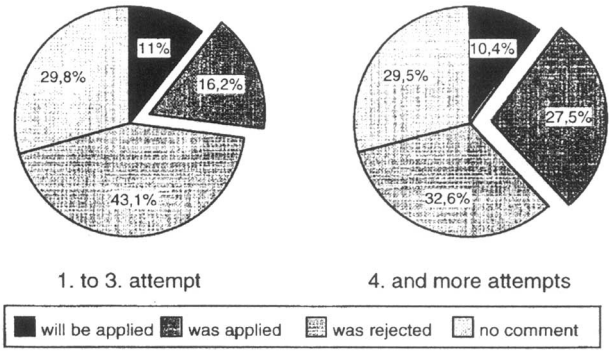

Fig. 1. PSITCO correlated with number of IVF attempts.

DISCUSSION

According to the Austrian Reproductive Medicine Law of July 1, 1992, the physician is obliged to offer patients PSITCO: however, patients are free to avail themselves of this facility or to refuse it. The aim of the present study was to determine whether just the offer of psychological support (as prescribed by this law) during assisted reproduction has a relevant influence on the outcome of treatment. It should be emphasized at this point that individual forms of psychotherapy were not taken into consideration. The results obtained in the study led the authors to consider whether this legal obligation to offer PSITCO produces a measurable benefit for the patient.

Several approaches to psychological support during sterility treatment have been proposed in earlier studies (1–16). The unfulfilled desire for parenthood causes an enormously high level of stress for the patient (11–13). This stress level is similar to that caused by the diagnosis of a serious physical illness (16). It was shown that this psychological pressure is expressed in higher stress hormone levels (cortisol, prolactin) and reduced gonadotropic hormones (luteinizing hormone, follicle stimulating hormone) (12). Further studies demonstrated that stress has a negative influence on various parameters involved in sterility treatment such as a reduced oocyte count, verified by lower estrogen levels and a poor fertilization rate (3,8).

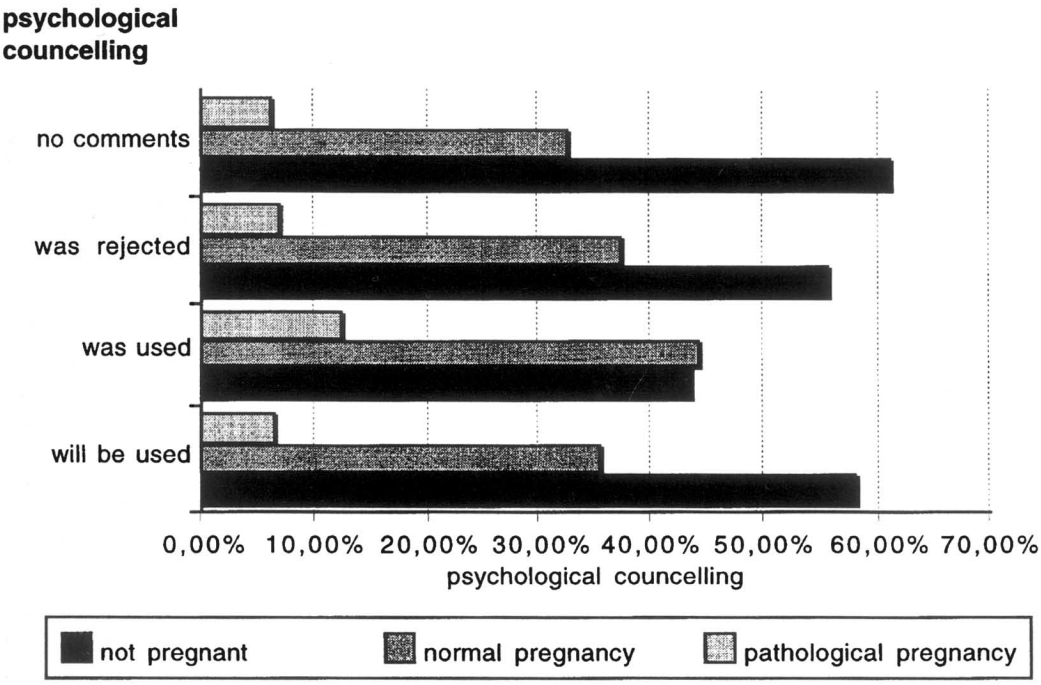

Fig. 2. Cumulative pregnancy rate correlated with PSITCO (percentage).

In consideration of these findings, psychological counseling should be a part of any sterility treatment: at our institute IVF patients are counseled on an individual basis, as couples, or in groups. Various therapeutic approaches and elements are used, e.g., family therapy, hypnotherapy, and relaxation and physical perception exercises. Counseling helps to change the individual's attitude and to activate his/her conscious perception of the body. This type of therapy would also make it easier to deal with stress, which, as has been proven, impairs the success of IVF (2,5,6,8,10,14,16).

Stress factors are variously described and defined in the literature. They include the environment such as personality and interaction-related aspects among husband, family, and society (2,4), specific aspects of IVF treatment such as daily hormone injections, follicle puncture, and waiting for the outcome of the pregnancy test (10), and the physiological aspect, i.e., physical failure (tubal occlusion, poor sperm quality, anovulation) (3,8). All these factors interact with each other and inevitably cause stress, which each couple deals with in a different fashion, depending on their psychological condition.

On being asked about the expediency of psychological counseling, many couples react positively. However, they do not consider it necessary to undergo counseling immediately (16). Only after a few unsuccessful attempts are patients inclined to participate in psychological therapy; this finding was clearly confimed in our study (Fig. 1). Counseling sessions enable patients to process their failures and encourage them to make further attempts. On the other hand, the patients also gradually learn to accept the fact that their desire for parenthood may remain unfulfilled (3,16).

Our study clearly proves that the two factors, basic acceptance of PSITCO as intended by law and its utilization, alone have no influence on the IVF pregnancy rate. Only a cumulative calculation demonstrated a clearly positive effect of PSITCO on the pregnancy rate. These results should encourage sterility specialists to consider psychological therapy an essential aspect of IVF. Solely a written declaration of the patient stating his/her awareness of the possibilty to undergo PSITCO is, in our opinion, insufficient.

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