Patterns of Progression and Nonprogression Through In Vitro Fertilization Treatment

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Purpose: Increasing numbers of couples are consulting for infertility and, after some years of investigation and treatment, will become enrolled in in vitro fertilization (IVF) programs. The media have focused on successful outcomes or difficulties in accessing services because of health authority funding guidelines. Couples are often assumed to be highly motivated because of their long prior involvement in treatment. However, little is known about uptake of and continuation through IVF treatment programs.

Methods: One hundred forty-four couples were followed through the process of IVF in a service that allows three cycles of treatment, with a minimum gap of 3 months between treatment cycles. Patterns of engagement in and delay and withdrawal from treatment were examined.

Results: One in five couples withdrew from the program before completion of the available number of treatment cycles. A further one in three significantly delayed their involvement in treatment cycles. Mean deviations of the time between attempts increased as the number of treatment cycles progressed. A proportion of couples did not complete a single treatment cycle.

Conclusions: The dramatic proportions of patients withdrawing from or very significantly delaying subsequent involvement are indicative of the often unacknowledged difficulties associated with IVF treatment. Implications for care are discussed.

KEY WORDS: in vitro fertilization; treatment progress.

INTRODUCTION

Infertility in couples of childbearing age is thought to have increased in prevalence to 15% (1), and treatment

by in vitro fertilization (IVF) has become more widely available (2). The IVF unit where this study was conducted provides free treatment for up to three completed cycles. Couples who have typically spent many years undergoing fertility treatment also have to endure a wait of a further 3 years for the specific intervention. Consequently, once accepted into an IVF program, patients are assumed to be highly motivated and there was an expectation that couples would complete available treatment over a short period. The unit's policy was to allow repeat treatment at 3-month intervals, and the belief was that couples typically progressed through their allocation of three cycles within a year of intake. Much has been reported in the literature concerning outcome in terms of IVF pregnancy rates. However, little is known about how couples actually advance through the treatment process. Recently the psychological sequelae of this form of treatment have begun to be investigated (3), and information about patterning of progress through available treatment may provide important indicators of participants' emotional status.

METHODS

As part of a prospective study of emotional responses to IVF (4), a consecutive sample of 144 couples embarking on their first cycle of treatment was recruited over a year. Their progress and lack of progress through the treatment program, which allowed a maximum of three completed treatment cycles, were monitored throughout the following 33 months.

RESULTS

During this period, 29% of couples became pregnant and a further 10% completed the three cycles of treat-

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Fig. 1. Outcome of IVF treatment for 144 couples over a 33-month period.

ment unsuccessfully. However, the majority of couples either significantly delayed engagement in one of their cycles of treatment (32%) or withdrew from the program (19%). During the study, 66 couples completed only one cycle of treatment; 37 couples completed two cycles; and only 20 couples, three cycles (Fig. 1). Indeed, 17 couples did not complete treatment for a single cycle.

Couples themselves determined the delay between treatment cycles as long as the 3-month minimum had been attained. Including cycles in which preimplantation embryos were replaced and those that did not progress to this stage; the length between cycle attempts increased over time, from a median of 6 months between the first and the second to 7 months between the second and the third and 8 months between the third and the fourth cycle attempts.

In addition to coping with failure in cycles in which the IVF process was completed, there were many occasions when couples embarked on cycles of treatment that were incomplete and therefore did not count toward their three attempts. In fact, in one-third of treatment cycles initially attempted, the IVF process was never completed for reasons such as a poor response to drugs, ovarian hyperstimulation, failure of egg retrieval, or failed fertilization (Fig. 2). One possible explanation for the poor progress through the program could be that those who withdrew or substantially delayed further treatment had experienced more

incomplete treatment cycles than those who completed the program. However, this was not substantiated. Failure to complete treatment cycles for medical reasons was not associated with withdrawal or delay.

DISCUSSION

Even though the pregnancy rates achieved were at a level recently predicted per cycle following assisted conception (5), two of three couples in this sample did not resolve their lack of biological parenthood. Although all couples had experienced an extended interval between being accepted for treatment and beginning an IVF program, many did not take up their full quota of available treatment. Indeed, 12% did not complete even a single cycle during a period of approximately 3 years. Potential explanations for this particular finding lie in the psychological impact of these procedures, especially during the early stages of treatment. Couples also tended to delay their final cycle option.

The experience of incomplete treatment cycles was a frequent occurrence, and it must be recognized that not only must couples often cope with the failure of IVF in terms of outcome, but also the process itself may often fail to be completed. Although this may occur for a variety of well-recognized medical reasons, for recipients of care it is undoubtedly an underesti-

Fig. 2. Outcome of 284 attempted cycles of treatment.

mated phenomenon. Although this factor did not appear to account for differences between couples in maintaining continuation in treatment, the nature of individual responses to these experiences of failure may be important.

Progress through IVF regimens, therefore, is not a straightforward procedure, either medically or psychologically. Improved information concerning the intricacies and difficulties of treatment may help couples to develop realistic expectations and increase their ability to cope with the unpredictable nature of IVF involvement. When significant delay between treatments occurs, this may be indicative of individual ambivalence, disagreement within a couple about the appropriate path forward, fear of failure, or the perceived stressfulness of the procedures. When individuals are locked into approach/avoidance conflicts, as may often be the case in these circumstances, such dilemmas are commonly associated with the experience of anxiety.

It may be helpful, in planning services, to be aware that many couples referred for IVF procedures are likely to delay treatment options and may consequently

complete a program only in a protracted manner—if at all. In terms of providing good patient care, it may be helpful for couples who are significantly delaying progression to be provided with an opportunity to discuss their thoughts and feelings regarding treatment to facilitate either reengagement or discontinuation as part of the process of psychological adaptation.

REFERENCES

1. Templeton A, Fraser C, Thompson B: Infertility—epidemiology and referral practice. *Hum Reprod* 1991;6:1391–1394
2. MRC Working Party on Children Conceived by In-Vitro Fertilisation: Births in Britain resulting from assisted conception. 1990;300:1229–1233
3. Laffont I, Edelmann RJ: Perceived support and counselling needs in relation to in-vitro fertilisation. *J Psychosom Obstet Gynaecol* 1994;15:183–188
4. Slade P, Emery J, Lieberman BA: A prospective, longitudinal study of emotions and relationships in in-vitro fertilization treatment. *Hum Reprod* 1997;12(1):183–190
5. Hull MGR, Eddowes HA, Fahy U, *et al.*: Expectations of assisted conception treatments for infertility. A complete account of current practice. *BMJ* 1992;304:1456–1459