Anxiety Effect in the Success Rate of Intrauterine Insemination (IUI) and In vitro Fertilization (IVF)

Hanom H. Syam1,2, Tita H. Madjid1,2, Jusuf S. Effendi1,2, Tono Djuwantono1,2, Wiryawan Permadi1,2, Zuhaira H. Fatma2

1Department of Obstetrics and Gynecology, Hasan Sadikin General Hospital, Bandung, Indonesia
2Faculty of Medicine, Universitas Padjadjaran, Bandung, Indonesia
Email: hanomsyam@gmail.com

Abstract

Background: Infertility has a tendency to become potential physical and emotional stressors. The current progressive advances in fertility technology have encouraged more infertile couples to seek for the cause of infertility and take measures to improve their fertility. It is not uncommon that these couples experience emotional distress when they are undergoing fertility treatments. Although it is controversial, some experts argue that this emotional distress affects the success of fertility programs, such as intrauterine insemination and In vitro fertilization programs. Objective: The aim of the study was to investigate the relationship between successful pregnancy and anxiety in patients undergoing intrauterine insemination (IUI) and In vitro fertilization (IVF) programs. Material and method: A total of 39 patients undergoing intrauterine insemination and In vitro fertilization program in Aster clinic of Dr. Hasan Sadikin General Hospital during period of September-November 2016 were measured for their anxiety level using Zung Self-Rating Anxiety Scale. The results were then categorized as not anxious (score of 20 - 44) and anxious (45 - 80). Data were then compared against successful pregnancy after each program. Results: Of 39 patients, 23 underwent IUI and 16 underwent IVF. In the IUI group, 10 patients were not anxious (43.48%) and 13 people were anxious (56.52%) while in the IVF group 9 were not anxious (56.25%) and 7 were anxious (43.75%). Three patients (18%) who successfully conceived in the insemination program were those who were not anxious. Meanwhile, in the IVF group 3 patients (18.8%) also got pregnant with 2 of them were not anxious and 1 was anxious. A statistical calculation was performed using Fisher test, resulting in p = 0.068 and p = 1.000 for IUI and IVF, respectively. Conclusion: There is no significant correlation between the success of the fertility program and anxiety in patients undergoing IUI and...
1. Introduction

The inability to have children after being married for more than 1 year without using any contraception is commonly known as infertility. Infertility has increased over the past few decades and has become a social and challenging problem for healthcare providers around the world. More and more couples are coming to fertility centers because of difficulties to get pregnant. Advances in medical approaches have enabled us to continue looking for the causes of infertility and perform actions to improve fertility. As soon as the cause is known, the patient undergoes therapies to conceive. Treatments of infertility are divided into drugs, insemination and assisted reproductive technology (ART) [1]. It is not uncommon that the couple undergoing infertility therapies becomes susceptible to the problem of anxiety and stress associated with the experience of their infertility and the preparation of the infertility therapy [2], lack of enjoyment during intercourse, lack of respect for sexual intercourse, and even avoiding intercourse [3]. In fact, sometimes it is these problems that led to infertility as referred to by some authors as the “psychogenic infertility” that includes factors such as personality, family relationships, sexual disorders, guilty feelings, the urgent desire to have a baby, or fear of labor, which are all known to lower fertility [4]. Anxiety is the topic discussed in this study that is the most frequently found mental disorders [5]. The anxiety trait refers to individuals who tend to respond to stressful situations with increased anxiety. The state of anxiety is a subjective emotional condition that is temporarily or momentarily experienced by individuals due to tensions and anxiety, triggering the autonomic nervous system activities [6].

The assisted reproductive technology (ART) also contains risk factors that can cause behavioral and psychological changes for those who receive it. There are 3 main issues that are routinely experienced by patients during the couple’s preparation both before and during the therapy. First is the thought of the possibility of permanent infertility or losing hope of having children. Second is the expectation towards the outcome of therapy itself. The third is during the procedure, or what is referred to as procedural or situational distress in which anxiety may arise from fear of daily hormone injections or pain during oocyte retrieval or emotionally tense moment during the embryo transfer. In a recent study of couples undergoing ART, it is evident that these couples tend to have a high lev-