



Middle East Fertility Society
Middle East Fertility Society Journal

www.mefsjournal.com
www.sciencedirect.com



ORIGINAL ARTICLE

Persistent endometrial polyps may affect the pregnancy rate in patients undergoing intrauterine insemination

Amal Shohayeb *, Amany Shaltout

Department of Obstetrics and Gynecology, Cairo University, Egypt
Samir Abbas Medical Center, Jeddah, Saudi Arabia

Received 4 December 2010; accepted 13 March 2011
Available online 10 September 2011

KEYWORDS

Endometrial polyps;
Intrauterine insemination;
IUI;
Pregnancy rate;
Hysteroscopy;
Hysteroscopic polypectomy

Abstract Objective: To determine whether polypectomy before intrauterine insemination achieved better pregnancy outcomes than no intervention.

Study design and setting: A prospective comparative study conducted in a private assisted reproduction centre.

Subjects and methods: A total of 120 women having asymptomatic endometrial polyp (EP) that was diagnosed by 3D ultrasound and color Doppler and undergoing IUI were randomly allocated to one of two pre-treatment groups. Hysteroscopic polypectomy was performed in the study group while in the control group no intervention was done. All patients were scheduled to receive four cycles of IUI in both groups within 12 months duration. The first IUI cycle was planned after three menstrual cycles in both groups.

Results: No complications after hysteroscopic polypectomy were recorded. A total of 37 pregnancies occurred, 25 cases in the study group which included 57 cases and 12 cases in the control group which included 53 cases. Two cases in the study group and one case in the control group got pregnant during the 3 months waiting period, before performing IUI. Cumulative pregnancy rate in both groups after four IUI cycles was 23 (38.3%) in the study group and 11 (18.3%) in the control group. This difference was statistically significant ($p = 0.015$).

* Corresponding author at: Department of Obstetrics and Gynecology, Faculty of Medicine, Cairo University, Egypt. Tel.: +20 235875859.
E-mail address: amalshohayeb@msn.com (A. Shohayeb).



Conclusion: Persistent endometrial polyps are likely to impair reproductive performance in this selected patient group and hysteroscopic polypectomy before IUI can be considered an effective measure especially as it is a safe procedure with a low complication rate.

© 2011 Middle East Fertility Society. Production and hosting by Elsevier B.V. All rights reserved.

1. Introduction

Implantation is the process by which a genetically normal blastocyst attaches to the endometrium, penetrates the stroma and establishes the trophoblast. The process involves an interaction between the well-synchronized endometrium and the growing embryo which is mediated by soluble growth factors, hormones, adhesion molecules, the extracellular matrix and prostaglandins. These elements coordinate the steps by which the embryo attaches to the epithelium and invades the stroma (1,2).

Little is known about the true prevalence of polyps in infertile patients and whether polyps are causative of infertility (3). Identification of endometrial polyps (EP) using office hysteroscopy in an asymptomatic population of IVF patients, ranged between 6% (4) and 7.68% (5). It was noticed that, the majority of polyps particularly smaller polyps (average diameter 0.7 cm vs. 1.3 cm), in asymptomatic premenopausal women appear to regress spontaneously (6).

Diagnosis of (EP) used to be inaccurate. Hysterosalpingography (HSG) has a sensitivity of between 50% (7) and 98% (8) for intrauterine lesions, but it is unable to reliably distinguish between submucosal myoma and EP. Recently with the advent of transvaginal ultrasound (TVUS) (9) and 3D ultrasound and improved Doppler technology (10,11), the sonographic diagnosis of EP is highly accurate; with the diagnostic hysteroscopy being the gold standard (12).

It is unproved whether polyps are causative of infertility, or whether surgical polypectomy by hysteroscopy improves the likelihood of successful conception (3). Very few studies have been done to discover the effect of polypectomy before intrauterine insemination (IUI) on the pregnancy rate.

The aim of the work was to determine whether polypectomy before intrauterine insemination achieved better pregnancy outcomes than no intervention.

2. Materials and methods

One hundred and ninety-five women having asymptomatic EP were diagnosed by 3D ultrasound done twice postmenstrual 3-months apart as some of endometrial polyps have a tendency to regress. Patients fulfilling the inclusion criteria were selected from the population attending IVF unit of Dr. Samir Abbas Medical Centre in Jeddah during 30 month period from January 2007 to July 2009. Participants were informed of the study characteristics and were recruited for the study. Only a total of 120 infertile women fulfilled the criteria and agreed to participate. The study was approved by the center's ethics committee.

Patients underwent a complete infertility evaluation that included assessment of ovulatory dysfunction with a hormonal profile that includes FSH, LH, E2, TSH, and prolactin done at day 2 or 3 of the cycle and mid luteal serum progesterone. TVUS was done in the early proliferative phase of the cycle, HSG, semen analysis, PCT, and in some cases laparoscopy was done.

Inclusion criteria: Primary or secondary infertility of at least 24 months, with EP diagnosed sonographically and are candidates of IUI, as indicated in patients with patent tubes diagnosed either by HSG or laparoscopy and have subfertile or fertile semen analysis with a failure to achieve pregnancy after at least three cycles of successful ovulation induction and timed coitus.

Exclusion criteria: Age > 39 years, tubal factor, azoospermia, severe oligospermia (according to WHO 2003), poor responders to hMG or r-FSH as ovarian response to adequate stimulation may be considered the most accurate, although indirect, representation of ovarian reserve (13).

Female infertility was diagnosed in patients with ovulatory dysfunction, cervical factor, or mild and moderate endometriosis.

Male factor infertility was diagnosed if at least two semen analyses were done one month apart and were subnormal according to World Health Organization (WHO 2003).

Unexplained infertility was diagnosed in patients with normal ovulatory cycles, normal semen analysis, HSG, and/or laparoscopic examination free.

Diagnosis of EP was suspected on ultrasonographic examination when hyperechogenic image with regular contours occupying the uterine cavity surrounded by a small hypoechogenic halo was noticed. A thin, hyperechogenic line in the middle line reflecting the interface between the endometrium and the polyp translating the displacement of endometrial line helped in the diagnosis, confirming that the diagnosis was done by 3D TVUS (Figs. 1 and 2). After the detection of the stalk color Doppler revealed a straight vascular pattern transducing the vascular stalk of the attachment area (Fig. 3). 3D transvaginal ultrasound done postmenstrual at least twice, 3 months apart, to confirm the diagnosis.

Computer-assisted randomization was used. Patients were randomly allocated to one of two pretreatment groups using an opaque envelope technique by a specialist nurse. The study group was composed of 60 patients in whom hysteroscopy and polypectomy was done (Fig. 4). They received general anesthesia and after detection of the location of the polyp, the polypectomy was performed by means of a 5.5 mm Olympus continuous flow hysteroscope with a 5 Fr scissors and forceps and was submitted for pathological examination. All patients left the center in the same day with no complications. The control group composed of 60 patients in whom no intervention was performed and the next cycle after diagnosis was considered as the start of the study.

All patients were scheduled to receive four cycles of IUI in both groups within 12 months duration. The first IUI cycle was planned after three menstrual cycles in both groups.

2.1. Semen preparation, ovulation, monitoring, triggering of ovulation and IUI

Patients received induction of ovulation by intramuscular injection of 75 IU hMG as a starting dose (Menogon; Ferring,

Download English Version:

<https://daneshyari.com/en/article/3966320>

Download Persian Version:

<https://daneshyari.com/article/3966320>

[Daneshyari.com](https://daneshyari.com)