

Role of IUI (Intra Uterine Insemination) In the Management of Infertility in Unani System of Medicine.¹Yasmin M.Ali , ²Zahir I.Kazi¹Asst. Professor in Dept of Amraze Niswan WA Qabalat, Dr. M.I.J.T Medical College, Mumbai²Sonologist and Radiologist Prime Diagnostic Centre, Mumbai**Corresponding Author: Yasmin M.Ali**, Asst. Professor in Dept of Amraze Niswan WA Qabalat, Dr. M.I.J.T Medical College, Mumbai- India.**Contact No.:** +91-9867690777**E-mail Id:** dryasminali63@gmail.com**Conflicts of Interest:** Nil

Abstract

Infertility is defined as failure to conceive after one year of regular unprotected intercourse. It affects 10-15% of couples of reproductive age group. Infertility can be due to either partner or both. Overall ,an etiology for infertility can be found in 80% of cases with an even distribution of male and female factors, including couples with multiple factors. A primary diagnosis of male factor is made approximately 25% of cases. Ovulatory dysfunction and tubal /peritoneal factors comprises of majority of female factor infertility. In 15% to 25% of infertile couples the aetiology cannot be found and diagnosis of infertility is made. **IUI (INTRAUTERINE INSEMINATION) OR ARTIFICIAL INSEMINATION** is a treatment that involves placing sperm inside a woman's uterus to facilitate fertilization. The goal is to increase the number of sperms that reaches the fallopian tube and increasing the chances of fertilization.

The ancient system of Unani medicine advocated variety of medication, which provides good results without any harmful effect. Reasons such as weight, diet, smoking, other substance abuse, environmental pollutants, infections, medical conditions, medications and family medical history could affect conception in couples

IUI: It is one of the simplest and earliest assisted reproductive technologies (ART). It is a form of ILAJ BIT TADBIR where the sperm from the partner is inserted with a syringe into woman's uterus during ovulation to increase the probability that fertilization would occur. As we are not doing treatment with some medicine but with a tadbir, it can rightly be said as Ilaj bit tadbir in Unani system of medicines. This is relative simple method and this is most effective method for couples with male infertility problems. It is less invasive and less expensive option compared to in vitro fertilization (IVF). Contrary to IVF/ICSI methods, IUI is easy to perform, inexpensive and offers particular advantage such as minimal equipment required, an easy technique to learn, being less invasive with a reduced psychological burden on the couple when compared to IVF/ICSI.

The methods and indication are discussed in full length paper.

Keywords: IUI, Infertility, Ilaj Bit Tadbir, Oligospermia, Anovulation

Introduction

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in 80% of cases with an even distribution of male and female factors, including couples with multiple factors. A primary diagnosis of male factor is made approximately 25% of cases. Ovulatory dysfunction and tubal /peritoneal factors comprises of majority of female factor infertility. In 15% to 25% of infertile couples the aetiology can not be found, and diagnosis of infertility is made.

IUI (Intrauterine Insemination) or Artificial Insemination

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History

Aristotle:-The earliest references to the ovary are in the writings of Aristotle (384-322 B.C.E.). Although, he did not recognize the existence of the ovaries.

Soranus of Ephesus (ca. 50 A.D.E.): - He gave the first detailed description of the ovaries, which he referred to as didymi (paired organs).

Hakim Akbar Arzani: - He described the shape and layers of the uterus.[40]

Abu Sahl Masihi:- He described in detail the structure of uterus and ovaries. He postulated that uterus lies in between urinary bladder and rectum and differentiate them at the upper portion of urinary bladder

Ibn-e-Sina or Avicenna:-he stated that The ovum is realised from ovaries and goes into the uterus.[by suspensory ligaments.

Ibn-e- Al-Quf:- He stated that uterus is a highly sensitive organ with maximum hormonal response

IUI has a long history first in animals . History of artificial insemination in domestic animals is a long and varied one as in fourteenth century Arab used to breed stallion ..

1300 AD there is first reported use of IUI . According to an Arabian book published in 14 th century an Arab chief of Darfur put a ball of cotton in the vagina of a mare which was recently bred by a famous stallion belonging to an enemy chieftan during night time . He then introduced the cotton ball into the vagina of his own mare. The mare become pregnant and gave birth to a foal.

1780 an Italian physiologist Lazzaro Spallanzani reported first successful use of Artificial insemination(AI). After success with amphibian animals, he experimented on dogs. When one bitch showed the signs of heat, he used semen at

body temperature to inseminate the bitch. 62 days later she gave birth to three pups. He is also called FATHER OF MODERN ARTIFICIAL INSEMINATION.

In London in 1793 , John Hunter was the first person reported to achieve a successful human pregnancy using the procedure. Hunter collected semen from husbands who had hypospadias, by making incision to man's testis. Then with a tool resembling turkey baster he inseminated the wife by putting the husband's semen in her cervix, resulting in successful pregnancy.

Indication

- Male factor infertility:

The most common reason for IUI are low sperm count or decreased sperm mobility.

Treatment option with mild to moderate oligospermia can be treated with intrauterine insemination.

- Cervical factor

The absence of nurturing mucus at midcycle can be treated by bypassing the mucus with IUI. When the cervix is altered by congenital malformation or past surgical treatment, IUI with washed sperm can be anticipated to result in pregnancy in 20-30% of patients per cycle in each of the first three cycles of treatment.

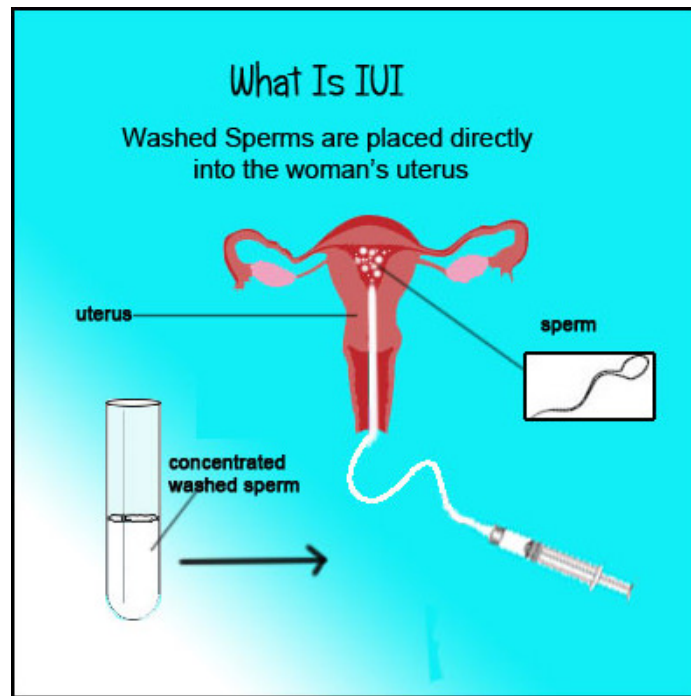
- Unexplained infertility

A diagnosis of unexplained infertility is assigned to couples with normal results of a standard infertility workup.

- Ejaculation dysfunction

Method

Before intrauterine insemination, ovulation stimulating medicines are used, careful monitoring will be necessary to determine when the eggs are mature. The IUI procedure will then be performed around the time of ovulation



In the case of husband insemination, the male partner produces a specimen, at home or at the clinic or doctor's office. The sperm is then prepared for IUI. Sperm from the male partner are "washed" or separated. Separation selects out motile sperm from the man's ejaculate and concentrates them into a small volume. Sperm washing cleanses the sperm of potentially toxic chemicals which may cause adverse reactions in the uterus. The doctor uses a soft catheter that is passed through a speculum directly into the woman's uterus to deposit the semen at the time of ovulation

IUI may be used in conjunction with ovulatory medications, such as giloyi ,sattey gilo ,kasni, asgand ,sataver, merhm dakhiloon etc in place of gonadotropins, or urofollitropins. If injectable ovulation stimulating drugs are used in an IUI cycle, careful monitoring is essential. Monitoring includes periodic blood tests and ultrasounds beginning around day 6 of the woman's cycle. Results of these tests will indicate when eggs are mature, prompting the hCG shot . Unani treatment is recommended..

It takes few minutes with minimum discomfort.

Timing and number of IUI per cycle

As spermatozoan and oocyte has limited period of survival, therefore adequate timing of insemination seems to be essential. So it is major goal of treatment to provide sperm that are capable of fertilizing the oocyte at the site of fertilization during a narrow time window. Various strategies have been developed to achieve this goal. Urinary LH peak monitoring, hcg injection to stimulate ovulation and scheduling IUI with different times are some of this strategies. Insemination is performed at the time of ovulation, usually within 24-36 hours after the LH surge is detected, or after the "trigger" injection of hCG is administered. Ovulation is predicted by a urine test kit or blood test and ultrasound..

Conclusion

The ancient system of Unani medicine advocated variety of medication, which provides good results without any harmful effect. Reasons such as weight, diet, smoking, other substance abuse, environmental pollutants, infections, medical conditions, medications and family medical history could affect conception in couples. Treatment by artificial insemination with husband's sperm remains a valuable first choice treatment before starting more expensive technique of assisted reproduction in many cases of human subfertility, at least if tubal patency is proven. It is simple and noninvasive technique which can be performed without expensive infrastructure.

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