

Infertility

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This article gives some highlighted information on infertility based on our best knowledge, understanding and daily practice. It is by no means a substitute for the medical advice from your physician. © All Rights Reserved.
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Overview

Infertility is defined as inability to achieve pregnancy after 12 months of unprotected and frequent intercourse. Two thirds of cases are due to a female problem, one-third to a male problem.

In women, the incidence of infertility increases significantly over 35 years old. Evaluation and treatment is normally recommended after six months of trying to conceive.

Causes

There are numerous causal factors that could result in infertility. Both systems, Western medicine and traditional Chinese medicine (TCM), have their insights and understanding on the causes and pathophysiological mechanisms of human infertility, and thus the corresponded approaches to the disease management.

Western Medicine

In Western medicine, the common causes of infertility include the following.

In male:

Oligozoospermia (low sperm count, <20millions/ml) - the most common male factor of infertility, and azoospermia (lack of viable sperm).

Sperm abnormally: morphology <50% normal, motility<50%.

Semen factors: semen volume < 1 ml/ejection; abnormal pH (normal 7.2~7.8); prolonged liquefaction time.

Some sexual functional disorders, such as retro ejaculation.

Systemic diseases such as cystic fibrosis (an autosomal recessive genetic defect).

In many occasions, the exact underline causes and mechanisms of the resultant abnormalities in semen and sperm listed above can be very complex and difficult to address.

In female:

Irregular menstruation cycles.

Anovulation (no egg released from the ovary at midcycle): seen in polycystic ovary syndrome (PCOS), hypothyroidism or hyperprolactinemia, etc.

Fallopian tube diseases: the egg will unable to be conveyed through the tube due to the obstruction.

Pelvic inflammatory diseases (PID). PID is the most common cause of preventable infertility in the U.S., and is a most likely cause of infertility in a normal menstruating woman under the age of 30. PID can cause a tubal problem.

Uterine/endometrial diseases, such as uterine fibroids and endometriosis.

Endometriosis is a condition in which small pieces of the endometrium (the lining of the uterus) migrate to other places in the pelvic area, such as the fallopian tubes, ovaries, or other pelvic structures. It often results in painful menstruation, painful intercourse, and infertility.

Other causes, such as cervical mucus abnormally that prevents sperm from entering the uterus cavity, anti-sperm antibody formation and, etc.
Unknown causes.

Traditional Chinese Medicine (TCM)

In the view of traditional Chinese medicine, human fertility relies on the normal functioning of the Kidney, Liver, blood and Spleen. The infertility occurs when one or more organs (i.e., Kidney, Liver, blood and Spleen) are impaired. As one should understand, the terms of the organs here are used primarily to classify a certain group of physiological functions, although they may or may not be physically consistent with the anatomic organs.

In male:

Kidney Qi/Yang deficiency – causes low libido, low sperm count, cold intolerance, periocular pigmentation, low back (dull) pain.

Kidney Yin deficiency – causes increased sexual activity, low seminal volume, less sleep, excessive sweat, and hair loss.

Spleen Qi deficiency – causes fatigue, dysthymia or depressed mood, pale, low sperm count.

Liver Yang excess – causes agitation, insomnia, headache, sexual dysfunction, low seminal volume, sperm abnormally, premature grey hair..

Liver Qi stasis – causes depression, mood swing, sigh, hypochondriac pain, sexual dysfunction, sperm abnormal, prolonged liquefaction

In female:

Blood deficiency – causes prolonged menstrual cycle or premature menopause, light or scant menses, fatigue, head lightness, dry hair, and pale mucosa and skins.

Blood stasis – causes irregular menstruation, dysmenorrhea (painful menstruation), dark menses, low abdominal pain, tubal disorders, skin petechiae or increased pigment.

Blood excessive heat – causes preterm menstruation with a heavy and bright-red menses, excessive sweat, warm and moist skins, and insomnia.

Liver stasis – causes depression, mood swing, sigh, hypochondriac pain, sexual dysfunction, dysmenorrhea, dark menses, low abdominal pain, and PCOS.

Liver Yin deficiency or Liver Yang excess – results in a short temper, insomnia, migraine, shortened menstrual cycle with a fresh, low-volume menses and may have an increased libido.

Spleen Qi deficiency – causes fatigue, decreased digestion function, dysthymia, cold and dry limbs, low muscular tone, low sexual desire, prolonged or irregular

menstrual bleeding, profuse thin leucorrhea, anovulation, spontaneous abortion (in an early gestation).

Kidney Qi/Yang deficiency – causes low libido, irregular menstruations, low back pain, cold intolerance, periocular pigmentation, and decreased bone density.

Kidney Yin deficiency – causes hot flash, night sweat, premature grey hair, irregular menstruations, and premature menopause.

Management

The management of infertility cases typically include making a causal diagnosis and give the proper treatments based on the diagnosis.

Diagnostic Assessment

The following are the most commonly used steps that assist a clinician to reach a causal diagnosis in the infertility management.

First of all, a semen analysis should be done to evaluate the male factors.

Prepare a basal body temperature (BBT) chart from the time you plan to conceive.

Anovulation is suspected if the BBT does not show the typical midcycle temperature elevation. Check the blood thyroid-stimulating-hormone (TSH), prolactine, T3 and T4 to exclude hypothyroidism, a correctable cause of anovulation. A luteinizing hormone to follicle-stimulating hormone ratio (LH/FSH) (normal 1.5:1) assay, and an ovary ultrasound study would be helpful to assess polycystic ovary syndrome, if the patient presents irregular menstrual bleeding, obesity and hirsutism (excess facial hair).

If the semen analysis is normal and ovulation is confirmed, fallopian tube abnormalities should be assessed by hysterosalpingogram (HSG). If potentially correctible tubal disease is suggested by the HSG, laparoscopy may be indicated to visualize the oviducts and to reconstruct the damage (tuboplasty) when possible.

Treatment

After the necessary diagnostic assessments have been done, you may want to discuss the results of examination and the treatment options with you physician.

There are a number of treatment measures available in both Western medicine and TCM and you are responsible to make your decision based on your need and preference.

Western medical approaches

Treat the correctable medical conditions, such as hypothyroidism, PID and, in some cases, oviduct obstruction and the male factors.

Ovulation induction: Clomiphene citrate is administered orally for 5 days beginning on day 5 of the menstrual cycle; human menopausal gonadotrophin (HMG) may be used if clomiphene fails. The common side effects include ovarian hyperstimulation and multiple gestation (the latter can cause various severe obstetrical complications).

Intra uterine insemination (IUI): An artificial insemination of sperm directly into the uterine cavity close to the fallopian tubes. Before insemination, the sperm have been washed free of seminal fluid.

In vitro fertilization (IVF): This is an option in many clinical situations, especially when uncorrectable tubal obstructions exist. In IVF procedure, eggs are aspirated from the ovarian follicles transvaginally with the aid of ultrasound. In laboratory, the eggs are fertilized with sperm resulting in the formation of embryos. Multiple embryos are then transferred into the uterine cavity. A cumulative pregnancy rate reaches 60% after six IVF cycles although it is quite costly.

TCM approaches

Patients are encouraged to have a necessary medical evaluation done in order to assess any immediately correctable medical disorders (as mentioned above), or exclude any underlined malignant diseases before they start the TCM treatments.

It can be very helpful if the patients bring their medical exam data/results (including a basal body temperature chart, if any) when visit our clinic. A defined Western medical diagnosis, if available, will also be valuable for us in evaluating and treating the case even in TCM system.

In addition to infertility as a chief complain, a patient usually presents with a certain clinical profile composed with various particular symptoms and signs, including a life style and personality (see Causes - traditional Chinese medicine section). Each clinical profile will usually fit into one or more categories described as follows and this is how a TCM categorical diagnosis (or called Zheng identification) is reached.

A regimen of TCM treatments (i.e., acupuncture and Chinese herbal medicine), including the selection of acupuncture channels and points, needle manipulation and herbal composition, is made based on a refined categorical diagnosis or Zheng identification.

Acupuncture and Chinese herbal treatments are least invasive and generally safe, and are recommended for the infertility patients with the following conditions.

Irregular menstruation.

Anovulation.

Semen/sperm abnormally.

IUI/IVF support to enhance the success rate. This is achieved by improving the quality of eggs and sperm before fertilization, and promoting the maternal uterine-endometrial environment. In order to prepare an optimal fertilizing condition, we suggest the patient start TCM treatment at least 2 months before the IUI or IVF procedure.

Gynecological diseases, including PCOS, uterine leiomyoma, endometriosis, PID, and some mild-moderate tubal obstructive disorders.

Improvement of General well-being. A holistic well-being, which means a well-balanced Yin-Yang and a fluently circulating Qi/Blood, is necessary in order to achieve pregnancy. TCM treatment aims at restoring any impaired Yin-Yang balance and Qi/blood flow, and thus regain a fertilizing ability. This regimen is especially helpful in the infertility cases with "unknown" causes.

Financial consideration. As an additional benefit, TCM treatments are generally less expensive.

Summary

The infertility treatment by TCM has been a long history in China and other Asian countries and areas, and is getting popular in Europe and the U. S. in the recent decades because it is natural, effective and less costly. In our clinic, the overall success rate in infertility treatment is 78.2%, and the treatment course normally ranges from 2 to 8 menstrual cycles depending on the individual case; some difficult cases may need a longer period of treatment to achieve pregnancy.

As you may have found, the two systems, Western medicine and TCM, seem quite different and sometimes even "irrelevant" to each other in diagnosis and treatment of infertility and other diseases. They both, however, try to approach a same objective target, the human body, simply via the different directions and paths. This is not an issue of which one is the superior, but the fact that by integrating the two

systems, we are able to "see" more about the entire picture of human body with a wider-angled view and in a various-depth focusing, and thus we have more treatment approaches to choose for each unique disease scenario.