

'Science to the rescue when nature fails'

If a couple has difficulty in conceiving by natural methods even after one year of unprotected sexual intercourse then it's time that they should consult a fertility specialist. Today there are various successful techniques available to help couples achieve pregnancy when all other natural methods fail.

INTRAUTERINE INSEMINATION

IUI involves the injection of a sample of prepared sperm from a partner or donor into the woman's uterus a day around the time of ovulation. IUI is recommended for women with unexplained infertility previous failed natural cycles. IUI can also be used when the partner has slightly reduced sperm parameters. IUI can be done in a natural cycle, but results are better when drugs for ovarian stimulation are used. IUI can be single or double. Single IUI does 24 hours after menstruation trigger after ovulation is confirmed on scan. Double IUI is done for two consecutive days before and after ovulation. Sperm sorting techniques like microfluidics and MACS can be used in couple with IUI failure and high DNA.

IVF (IN VITRO FERTILISATION)

It is a procedure which is based on Artificial Reproductive Techniques (ART). During IVF, hormone injections are given to female partner to hyperstimulate the ovary to develop multiple eggs and then the mature eggs are collected (retrieved) from the ovaries and fertilized by male partner sperm in the lab outside the body. Further, the fertilized eggs (embryos) are transferred to uterus. IVF is suggested for women aged more than 35 years, men with zero or very low sperm count, couple with multiple failed IUI, and women with blocked tubes.

ICSI - INTRACYTOPLASMIC SPERM INJECTION

It is very similar to conventional IVF in that gametes (eggs and sperm) are collected from each partner. The difference between the two procedures is the method of achieving fertilisation. Today male factor infertility affects around 50% of the infertile couples. Contrary to the popular belief, male factor infertility can be easily treated. With the use of TESE/TMSE (testicular biopsy) and invention of ICSI, many infertile men are now able to father children.

ICSI refers to the laboratory procedure where a single sperm is picked up with a fine glass needle and is injected directly into each egg. This is carried out in the laboratory by specialised embryologists using specialised equipment. Very fine spines are required and the ability of the sperm to penetrate the egg is no longer important as this has been assisted by the ICSI technique. This procedure is most commonly used to overcome male infertility problems, although it may also be used where eggs cannot easily be penetrated by sperm, when sperm are retrieved through testicular biopsy or if you are going through PGT or ICSI may also be used if frozen sperm or egg is being used.

ICSI IN DOSE AS A PART OF IVF

ICSI is done as a part of IVF. Since ICSI is done in the lab, your IVF treatment won't seem much different than an IVF treatment without ICSI.

INTRACYTOPLASMIC SPERM INJECTION (ICSI)

It is a technique used in IVF treatment to so select and select sperm using a high magnification digital imaging microscope for microinjection into the egg. With the ICSI technique embryologists are better able to assess the structure of the sperm and exclude the sperm with suspected variations from being injected into the available eggs. It is of value in cases with morphologically poor sperm and poor response on previous IVF. With this technique, it's possible to evaluate sperm at 600x magnification and select the best sperm for ICSI.

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LASER ASSISTED HATCHING (LAH)

It is one of the several methods to help the fertilized egg to hatch and attach to the uterus. Oocyte is surrounded by a shell or glycoprotein layer called zona pellucida. After fertilisation, shell may become thick and hard due to culture condition and advanced age of a woman. These eggs may not hatch, thus may not be able to attach to the woman's uterus. Women who have undergone multiple IVF failures, LAH may increase their chances of implantation.

PGT-A

Pre-implantation Genetic Testing for Aneuploidy is a technique of testing the embryos for single gene disorder or numerical abnormalities of chromosomes. Women with advanced age or history of genetic disorder in family can opt for this test. Women who are undergoing multiple IVF failures or recurrent pregnancy losses are also ideally suited for this testing. For this, embryos are cultured in the lab up to day 5 blastocyst stage, then a small biopsy is done from its outer layer called trophectoderm and 4-6 cells obtained is sent to a genetic lab for chromosome testing. Until the results come the embryos are kept frozen. The proven healthy embryos will be transferred back to uterus in the next cycle and the unhealthy ones will be discarded. Thus, the procedure increases the success rate and decreases the miscarriage rate.

FROZEN EMBRYO TRANSFER (FET)

FET is a treatment cycle where embryo from previous or past cycle have been frozen and transferred into the womb of uterus as an appropriate time. Women will not have to go for stimulation again and again. Endometrium lining of the uterus can be prepared artificially with hormones or naturally FET gives

opportunity to women to undergo multiple cycle of transfer without having to undergo stimulation.

ENDOMETRIAL RECEPTIVITY ANALYSIS OR ARRAY (ERA)

When the uterus is not ready for the implantation instead of embryo transfer, small biopsy of the endometrium is taken and sent for genetic testing. The researcher analyses the expression of 200 genes and by using advanced computerized algorithms determine the personalized timing of embryo transfer for that patient. This test is advised for patients with multiple implantation failure despite consistent embryo being transferred.

INTRALIPIDS

Intralipid is a 20% fat emulsion that is administered by the intravenous route. The main constituents are soy oil and egg yolk, with trace amounts of peanut oil. It is believed that Intralipid can change the immune cells in the uterus lining making the environment more receptive to the embryo. Intralipid has been used with IVF treatment to help women who suffer either from recurrent miscarriage or repeated failed implantation following embryo transfer. Intralipid can be given one week before embryo transfer and on the day of transfer.

PERSONALISED IVF

Also called as Patient tailored ovarian stimulation, there are

many paths to achieve successful ovarian stimulation in IVF, but most patients prefer personalised approach to treatment. Ovarian stimulation has to be customized according to patient profile to give maximum benefit to the couple. Protocol for Ovarian stimulation depends on woman's age, weight, Ovarian reserve, response to past Ovarian stimulations, Long protocol, short protocol, double stimulation, minimal stimulation or stimulation with recombinant LH can be offered to achieve best quality oocytes and embryos.

OVARIAN REJUVENATION THERAPY

This can be used to achieve pregnancy in women with Premature Ovarian Insufficiency (POI). The growth factors and other components in platelet rich plasma (PRP) have been clinically shown to potentially accelerate healing of injured or poorly healed tissue, thereby improving function. PRP injections is a technique where 30 ml blood is drawn and centrifuged so that the platelet rich plasma is isolated and then re-injected back into the ovary. It is a minimally invasive vaginal procedure done with an objective that PRP would activate your ovarian primordial germ cells to mature eggs.

Analogous Stem cells that are research phase are totipotent cells which can be injected in the ovaries, and can be helpful for Ovarian rejuvenation in future. Both these procedures are safe and free of side effects as patients own body cells are used for injections.

ENDOMETRIAL PRP/PG-CSF

Adequate endometrial thickness is a main factor for implantation and pregnancy. Women with persistently thin endometrium often do not succeed with embryo transfer. Intravenous infusion of G-CSF has been studied in detail. G-CSF is a cytokine that stimulates neutrophil granulocyte differentiation and proliferation, and in turn induces endometrial proliferation and growth, thus improving pregnancy outcomes. In a similar fashion, PRP can be injected inside the endometrium to improve pregnancy outcomes in women with thin endometrium.

FERTILITY ENHANCING SURGERIES

Young women with infertility due to fibroids, endometriosis, tubal blockage, intra-uterine adhesions, endometrial polyps and uterine septum may benefit from minimal invasive endoscopic surgery. All the procedures can be done on a daycare basis and can help women conceive naturally. They can also improve success in women undergoing IVF.

FERTILITY PRESERVATION

Fertility preservation is the process of saving or protecting eggs, sperm, or embryos so that a person can use them to have biological children in the future. Fertility preservation can be suggested to people who have been exposed to gonadotoxic chemicals, undergoing gonadal surgery, chemotherapy or radio therapy, or couples who choose to delay pregnancy. Cryopreservation of sperm, oocytes freezing or embryo freezing can be done in patients after existing pregnancy. The choice of preservation techniques, to achieve successful and satisfying parenthood depends on the choice of couple, and whether they are qualified to undergo the procedures. Modern science and reproductive medicine have considerably advanced in this era and there are many options for couples who are unable to enjoy the joy of having a child, in their lifetime.



HEGDE FERTILITY CENTRE

The hospital established in third recurrence at Malach City primarily focusing on Fertility related services and Women Well-being. The centre is dedicated for Infertility Treatment & procedures like IUI, IVF, PGS etc. with the goal of being a centre par excellence with advanced facilities such as state of the art lab. Highly trained experts, a dedicated staff with varied skills options for fulfilling a couple's desire for a baby. HEGDE FERTILITY CENTRE with the best of one of the highest success rates for infertility treatment is led by Dr. Vandana Hegde, who is a pioneer in the field of infertility care and has carved a niche for herself in Assisted Reproductive Treatment by helping many infertile couples to realize their dream of having a baby. HEGDE FERTILITY CENTRE now addresses all the needs of couples through a team of highly qualified reproductive medicine specialist in treatments ranging from family planning assistance to advanced genetic procedures for recurrent miscarriage, implantation failure, etc.

For more details, contact:

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CONCEPTION & MINIMAL & SOFT
Touching Hearts of Millions since 1997

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