



INTRACYTOPLASMIC SPERM INJECTION (ICSI)

Fertility Issues in today's world

The world today is way different from what it was in the past. In many ways it has progressed which is a good thing. However, on the flip side, progress has also had some undesirable side effects – the escalation of stress being a primary one. Stress, coupled with various other factors has evidenced itself in the increasing number of couples facing trouble conceiving. **At Genome, our endeavour is to help such couples. Intracytoplasmic Sperm Injection (ICSI) is one process through which we attempt to do the same.**

Revolutionising Fertility Treatment

A specialised form of In Vitro Fertilisation (IVF), Intracytoplasmic Sperm Injection (ICSI) is a sophisticated assisted reproductive technology (ART) that is used primarily for the treatment of severe cases of male infertility.

In this procedure, a single sperm is directly injected into an egg to facilitate fertilisation. This technique is particularly beneficial in cases where sperm quality or quantity is poor and the primary cause of infertility.

How does it work?

ICSI works parallelly with in vitro fertilization (IVF), where eggs are retrieved from the woman's ovaries and fertilised outside the body. To start with, a single, healthy sperm is chosen which is then injected into the cytoplasm of an egg by skilled embryologists using specialised equipment. Once this fertilisation process is completed, the embryo is cultured for several days and then transferred into the woman's uterus.

When is ICSI used?

Male infertility is the primary reason for the selection of ICSI as a technique. It is ideal in cases where sperm count, or sperm motility is low in azoospermia cases. Cases wherein previous IVF cycles have failed due to poor fertilisation rates are



also benefitted by ICSI. It is also recommended and useful in cases of male factor infertility caused by vasectomy, infections like tuberculosis, mumps, STI or genetic conditions like cystic fibrosis.

What affects the success rate of ICSI?

Numerous factors dictate whether ICSI will be successful or not. Amongst them are the woman's age, cause of infertility and the overall health of the sperm and eggs involved. While ICSI in general offers better fertilisation rates than IVF, there is no 100% guarantee and success rates vary depending on age and gamete quality. Younger women generally have higher chances. The Skill, success rate and years of experience of the embryologist and the infrastructure of the embryology and semenology laboratories also play a crucial role in success.

Turning dreams into reality

For countless couples, ICSI has been nothing short of a miracle. It has been a viable option to help couples overcome seemingly impossible obstacles like poor sperm quality or quantity. It is safe to say that ICSI is today a key tool in modern fertility medicine.