

Embryo screening can improve pregnancy rate by 73% say experts



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JULY 24 is observed as World IVF day following the first IVF baby's birth in the world. In India, Assisted Reproductive Technologies (ART) Bill 2020 was recently passed by the Cabinet to be presented in the Parliament. The ART bill 2020 is meant to regulate IVF centers mushrooming all over the country to protect and safeguard the reproductive rights of women. India has one of the highest growth rates of IVF centers and procedures giving hope to millions of childless couples.

Assisted pregnancy procedures have gained a great amount of momentum in recent years due to difficulties in conception. However, there is little uniformity in the quality of service and the standard operating protocols. This leads to variations in the quality of service. To address this, ART bill is proposing the standardisation of protocols. One such change is the incorporation of Preimplantation Genetic Screening (PGS) or what has now been renamed a Preimplantation Genetic Test for Aneuploidies (PGT-A) in the protocol and making it compulsory to screen embryos before implantation.

Dr Priya Kadam, associate director, Reproductive Genomics, MedGenome Labs explains, "PGT-A is a test that examines the chromosomal material of an IVF embryo before implantation. It involves removing one or more cells from an IVF embryo to test for numerical chromosomal abnormalities (aneuploidy). This screening method facilitates the selective implantation of embryos that have a normal number of chromosomes (euploid embryos)."

Dr E Venkatswamy, associate director-quality assurance, MedGenome Labs, says, "PGT-A can reduce the number of IVF cycles required to get pregnant." He shares, "The average cost of an IVF cycle is about ₹1 lakh and above. The cost per embryo of PGT-A is about 10,000 to 15,000, which is roughly about 10 to 15 per cent of the IVF cycle. With PGT-A the chances of a successful pregnancy are doubled, and the patient is saved the financial, physical, and emotional trouble of another IVF cycle."



Dr Priya Kadam lists advantages of PGT-A

73%

reduces the number of IVF cycles required to achieve a successful pregnancy. 73 per cent pregnancy rate with PGS vs 36 per cent without using PGS

- Increases success rate for single embryo transfer

- Reduces the likelihood of miscarriage

Increases reproductive success rates in women above 35 years

Why is it recommended? Dr E Venkatswamy says:

- One in two human IVF embryos were observed to be chromosomally abnormal

- Up to 40 per cent of morphologically normal embryos are known to harbour chromosomal aneuploidies

- PGT-A reduces the number of IVF cycles required to get pregnant

- It increases success rates for single embryo transfer

- It reduces the likelihood of miscarriage due to aneuploidies