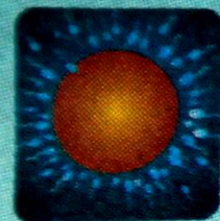
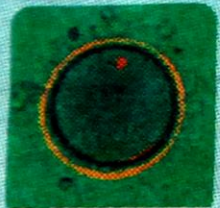


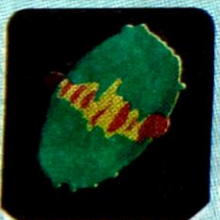
## WHAT'S HATCHING HERE?



How fertilisation takes place



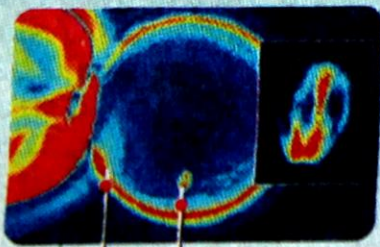
Egg with its outer covering (Zona) in orange colour and spindle (orange dot)



Normal spindle



Abnormal spindle



Zona Spindle  
Microscopic view of the egg with a spindle

**1** When eggs are mature, a trigger injection is given and 10-12 eggs are collected from ovaries by a minor surgical procedure

**2** Each egg is put in a separate petridish which has enzymes to dissolve the debris around it

**3** A separate sperm sample is made; this includes washing it

**4** Best sperm chosen depending on motility and appearance

**5** Two hours later, sperm injected into egg, away from delicate spindle to avoid damaging it

Best quality eggs injected back into uterus after two days using a soft, plastic tube

# Test boosts chances of IVF success

## A New Technique Can Detect Abnormal Eggs To Prevent Failure

Shobha John | TNN

A new test that can detect if the eggs produced by a woman are defective may prove to be a boon for wannabe mothers who opt for in-vitro fertilisation (IVF). Till now, women would routinely subject themselves to a series of failed IVF attempts without realising they carried defective eggs, which would produce abnormal children.

It's a technique that would have saved 49-year-old Umesh Chandrashekhar and his 42-year-old wife five failed IVF attempts. Three of their IVF tries were in the UK and two in Coimbatore. "We started the procedure in 1990 in Bristol, UK, where I was posted. After coming back to India, we even tried unsuccessfully with donor eggs. I've ended up spending Rs 15 lakh on this but to no end," says Chandrashekhar, a Delhi-based marketing executive.

The couple might have been spared the trouble, expense and heartache of repeated IVF attempts had there been a way to ascertain the viability of eggs.

But this new technique now available in the city may change all that. Medical experts at Delhi's Phoenix Hospital explain the procedure as follows: "A healthy egg contains a spindle, which holds the complete genetic package. Some eggs don't contain it. A special imaging system called the

**An ICMR report says that there are around 1.6-1.9 million infertile couples in India. Half the women have abnormal eggs or blocked fallopian tubes**

spindle view, in use abroad since 2003 and now available in India, makes it easy to check that."

Dr Shivani Gour, fertility expert at Phoenix Hospital says, "If there's no spindle, either the woman has a miscarriage or the baby is abnormal, with defects like Down's Syndrome or cerebral palsy." The patient has to undergo one IVF cycle to harvest the eggs. "They can't be taken out straightaway to check if the spindle is there or not. They have to be stim-

ulated first. An average of three cycles yield good IVF results," she says. The hospital started the special imaging system this July and claims to have completed two successful diagnoses so far.

So why are the eggs abnormal? Age has a lot to do with it. "For women, 37 is the watershed year. Genetic factors also cause this problem," says Gour, adding that conditions have to be strictly controlled for this procedure to work well. A specific body temperature of 37 degrees has to be maintained. Any aberration can damage a good egg or not show the spindle, thereby giving wrong results.

"Injection of the sperm inside the egg has to be done with great care so it doesn't damage the eggs and cause any abnormalities. So we ensure the needle doesn't damage the delicate spindle," says Hrishikesh Pai, fertility expert at Lilavati Hospital, Mumbai.

The screening is non-invasive and adds another Rs 10,000 to the cost of IVF procedure, bringing the total cost to Rs 1.1 lakh. Gour says "the technique is advanced, quite accurate and doesn't damage the eggs".

For Chandrashekhar though,

five failed attempts were enough to call it quits. "Nature operates in mysterious ways. And we did finally get a happy resolution by adopting an 18-month-old girl in August. She has filled the vacuum in our lives."

According to a report by the Indian Council for Medical Research, there are approximately 1.6-1.9 million infertile couples in India. Half of the women have abnormal eggs or blocked fallopian tubes. For them, there are significant gains in detecting abnormal eggs at the outset.

The technique will also boost India's growing reputation as a popular location for IVF treatment. Its relatively low costs, excellent infrastructure, foreign-trained doctors and few legal hassles has already attracted many foreign couples desperate for a baby. In the UK and US, IVF costs a whopping Rs 7 lakh per cycle, including fertility drugs and lab procedures, but here, it is one-seventh of that. Besides, says Gour, in the UK, only two embryos at a time can be put back into the woman after treatment. There's no such stipulation in India.

shobha.john@timesgroup.co