

BOON TO CHILDLESS COUPLES

BY A HEALTH REPORTER

Setting a new precedent for the rest of the country, the Lilavati Hospital IVF Centre in Mumbai recently installed a new microscope machine that will allow infertility specialists to pick the best quality sperm while carrying out the specialized test-tube baby procedure of ICSI.

FAMILY FIRST

The machine, called the Intra-Cytoplasmic Morphologically Selected Sperm Injection (IMSI), helps magnify the image of the sperm 7,200 times, thereby allowing doctors to pick the best looking healthier sperms. "The machine is an advanced version of the

earlier technique of Intra-cytoplasmic sperm injection (ICSI), having a magnification capacity of 16 times higher than ICSI," says Dr. Nandita Palshetkar, infertility specialist at the Lilavati Hospital.

The procedure of ICSI involves the

technique where an egg is held and injected with a single live sperm with the help of a machine called micromanipulator. "The sperms are obtained from the husband. If the husband has zero sperms, then sperms are retrieved by doing a testicular biopsy. The fertilization occurs outside the woman's body. The baby is created outside the body of the mother and then after a period of two days, the embryo is placed inside the woman's womb. Intra-cytoplasmic Morphologically Selected Sperm Injection (IMSI) is a modified form of the ICSI (intra-cytoplas-

mic sperm injection) technique; however the only difference is that it carefully selects the best quality sperm by magnifying it many times more than the conventional ICSI method," says Dr. Hrishikesh Pai, a gynaecologist and infertility specialist.

The IMSI method was first developed in 2004 by a team led by Benjamin Bartoov, of Bar-Ilan University in Israel, who used IMSI to select those sperms with a shape and size that indicated good genetic quality. The pregnancy rate in his patients jumped from 30 per cent to 66 per cent.

"A large number of IVF procedures face failure risk due to males having a low sperm count. If the sperm count is lower than required, the IMSI is administered. In this, as the sperms are magnified 7,200 times it gives us the option to choose the good sperms from the bad ones," said Hrishikesh Pai.

He further added, "The higher magnification capacity of the IMSI technology would allow a much clearer measurement of the dimensions of the sperm, which will enhance the chances of successful fertilization. He also added that in spite of the machine being expensive, patients would not be charged

extra for using it. The new machine will help achieve a better success rate. Earlier, it was available only in foreign countries. The new technique is particularly helpful for those whose sperm count is low, or have a large number of abnormal or immobile sperms. With only 200 times magnification earlier, it was difficult to distinguish the sperms. But with the image getting magnified 7,200 times, it's much easier to pick the good ones. Since IMSI was introduced by Lilavati Hospital unit we have achieved many pregnancies, using this technique."

