

GENETIC DIAGNOSIS OF THE EMBRYO

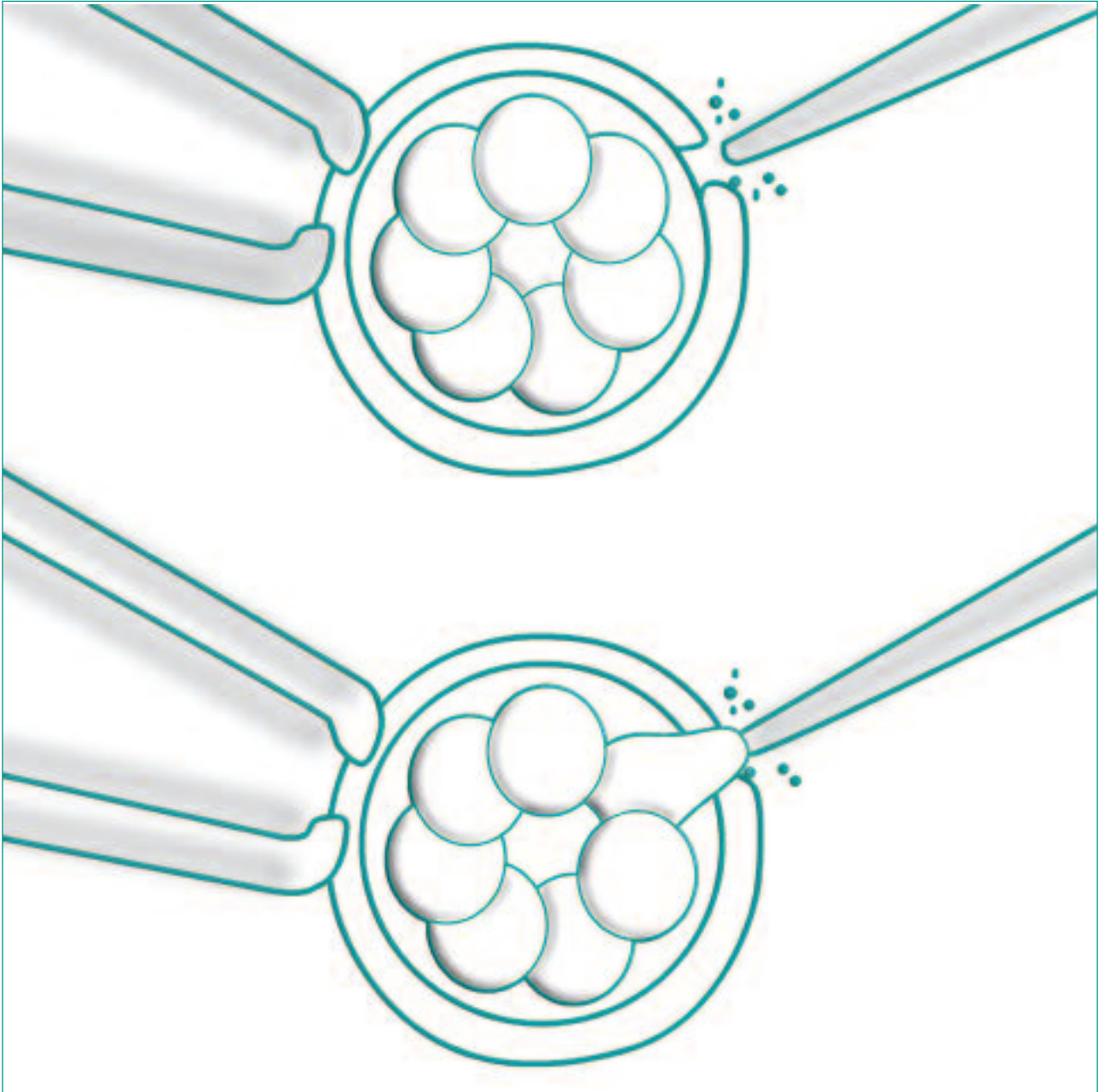
Definition: The Preimplantation diagnosis (PGD) is a new method of Prenatal Diagnosis. It makes it possible to detect possible chromosomal or genetic abnormalities in embryos obtained through In Vitro Fertilisation before they are transferred into the uterus, thereby avoiding the transfer of embryos with those disorders. After cultivating the embryos obtained through In Vitro Fertilisation for 2 or 3 days, one of the embryo's 6-8 cells is removed. That cell is genetically analysed with the objective of investigating whether it is a carrier of any chromosomal or genetic disorders. The remaining cells of the embryo are genetically identical to the analysed cell and continue to develop normally in the incubators. The day after the removal of the embryonic cell, we know which embryos have no genetic disorders and are candidates for transfer to the patient's uterus.

Indication:

- Couples that carry or suffer from diseases of genetic or chromosomal origin that are transmissible to their offspring.
- Women of an advanced age.
- Couples who have repeated miscarriages.
- Patients undergoing fertility treatments who have failed several times to conceive through In Vitro Fertilisation.
- Couples who repeatedly produce embryos of low morphology.

Advantages: This technique makes it possible for us to work exclusively with embryos that do not have chromosomal or genetic disorders, which leads to an increased chance of pregnancy. Furthermore, in couples with chromosomal or genetic disorders, it avoids the disorder being passed on to the offspring. In the cases of repeated miscarriages we can avoid further miscarriages by selecting viable embryos. In the remaining cases it makes it possible for us to obtain more detailed information about why a pregnancy is not being achieved.

Disadvantages: The inconveniences of this technique arise from its complexity, which make it an expensive technique. In addition, in 10% of cases an error may occur in the diagnosis, which is why, in the event of pregnancy, a Prenatal Diagnosis is highly advisable.



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