Evolution of Reproductive Medicine

Reproductive medicine (RM) has evolved significantly over the past few decades, and we have moved “overnight”.

The first fertility treatments such as artificial insemination date back to the 1950s. In the 1970s in vitro fertilization (IVF) was developed.

The advances of RM have been due to the great technological development of pharmacology, imaging, reproductive surgery, molecular biology, andrology and reproductive genetics, as well as assisted reproduction laboratories (ARL): culture media, insemination techniques, embryo biopsy taking, vitrification-devitrification, non-invasive monitoring of embryos, the creation of preimplantation genetic analysis (PGT-A and M, Sr) which has improved the effectiveness of assisted reproduction techniques (ART).

New massive sequencing techniques have changed our perspective and focus. Today it is possible not only to solve fertility problems, the transmission of diseases of genetic origin can be prevented, which a few years ago could not be detected, it is even possible to replace altered genetic material, although these techniques are still in research phases, we will have to see their effectiveness.

The lines of research in RM today focus on the creation of techniques for egg development, disease prevention, non-invasive preimplantation genetic testing, improving the implantation potential of the endometrial and embryonic component.

The future of RM will be the implementation of artificial intelligence (AI) in ARL, as well as their robotization. All with the aim of increasing the efficiency and effectiveness of ART, to solve not only male and female fertility problems, but also to prevent disease.

The demands as a society have also changed, with the professionalization of women, the postponement of fertility by women, couples, and the evolution of sexual diversity.

Today women and men have the option to preserve fertility; freezing eggs, sperm and embryos, whether the cause is due to a disease such as cancer, or for personal reasons, or professional circumstances, are forced to postpone motherhood.

The important thing is to ask where the future prospects are going, where is the limit of what is technically possible and what is ethically acceptable? And do not lose the objective: optimize the results and ensure the birth of a healthy baby, and not the idea of a custom-made baby.

The journal wants to motivate the dissemination of research in the world on reproductive medicine, which surely in 10 years will not be the same as we are living, but will have the same objective everyone can have a
baby and form a family both women, men, couples with fertility problems, as the SD and form the different types of family either single-parent two-parent, homoparental, as marked by the World Health Organization, and there are no political, social, cultural, religious, geographical, or economic limitations.

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