

This medical first in France gives tremendous hope to all women of reproductive age whose fertility is threatened even at the age of 40.

It is well-known that the ability of an oocyte to develop an embryo and then a born child diminishes as the woman gets older. It can also be altered if, for other reasons, the oocyte reserve becomes weak: among these reasons are a low reserve as early as birth and the threat of an early menopause, a disease affecting the ovarian function, the toxicity of certain sterilizing drugs that are nonetheless indispensable to heal a severe pathology, certain genetic, immune and environmental perturbations.

In this particular case the patient associates a low ovarian reserve and an advanced age (more than 39) with the need to have to differ her in vitro fertilization attempt. It is decided that her fertility should be preserved as the time factor with the passing months threatens her possibilities to conceive a child.

An oocyte biopsy is performed on August 2011: only two mature oocytes are collected, reflecting the importance of her ovarian insufficiency.

The in vitro fertilization attempt is carried out by the end of March, 2012. Both oocytes are intact at devitrification. Then each one is microinjected with a sperm from the husband and creates an embryo.

Both embryos were transferred to the patient owing to her age (she was more than 40), each one developed to create a child: a boy and a girl were born on Dec. 4, 2012 at Clinique St Jean-Languedoc, Toulouse.

This outcome demonstrates that despite current knowledge and practices oocyte preservation is possible, even in the case of ovarian insufficiency and being more than 38 years of age, two factors that greatly affect oocyte capability.

Although oocyte vitrification is a proven technology which resulted in the world's first birth in 1999, it has only been authorized in France since the latest bioethics law dated July 7, 2011.

This medical breakthrough goes far beyond France: any woman of reproductive age whose fertility must be medically preserved is now entitled to oocyte preservation.

The social and biomedical consequences of this breakthrough putting women of reproductive age on an equal footing with men in terms of gamete preservation are part of the new chapter on Human Reproduction Ethics: the preservation of female fertility.

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