INVO/VAGINA COMPLEX REPLACES CONVENTIONAL INCUBATORS


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Definition
With this process we are able to return to a natural and semi-natural environment where gamete culture and development occurs in the best natural incubator, namely, the vagina, where gas concentrations, temperatures, and humidity are physiologically appropriate. At the same time, mild ovarian stimulation is used, and this safe treatment is also associated with healthy babies at home, a lower cost, and a tolerable cost benefit ratio derived from in-vitro cell development.

Introduction
Embryos quality and in Vitro - in Vivo production

O2 concentration
Gas physiology in the female reproductive tract

Conventional Incubators
18 - 20% O2

Physiological drawbacks and consequences

- O2 concentrations result in RCO.
- Effect on embryos metabolism.
- Altered parental chromosome translocation.
- Altered gene expression.
- Altered protein and lipid formation aberration.

INVO Principles

The intravaginal environment is able to buffer the medium containing metabolically-active oocytes.

Materials and Methods
125 cycles were performed (June 2009 - May 2013). In average 6.5 oocytes per cycle were retrieved, and a mean of 4.2 was fertilized by INVOcell™ device. The device was provided with 1.1 ml of pre-gassed and pre-warmed culture medium, and a count of 35,000 to 50,000 metaphase II oocytes. After 72 hours of cell culture, the device was removed from the vaginal cavity.

Conclusion
INVO is a simple procedure that does not require complex laboratory equipment.
INVO does not require complicated maintenance.
INVO produces high-quality embryos that result in a good rate of clinical pregnancy per cycle (40%) and a lower rate of multiple gestations (<12%).
INVO has good acceptance because of patient involvement during the initial stage of embryos development, with every positive and significant psychological effect.
INVO makes it possible to offer treatment to infertile couples in small medical facilities practically anywhere.

References
The study was approved by the Institutional Review Board of the Colombian Center of Fertility and Sterility (CECOFES).

Note: INVO® is in vitro culture of embryos in the woman's vagina under managed conditions.

ONCOLOGY
Oncologic Impact

INVO VAGINA complex-Mini Tri-Gas Incubators

O2 = 5-8% in the female reproductive tract

INVOcell™ device

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INVO Process

Mild Stimulation

In vivo culture of embryos

INVOcell™ device

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