INVOCELL - A LOW COST ART TECHNIQUE
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After the first successful pregnancy by IVF in 1978, Intra vaginal culture is an another variation in IVF technique developed by Dr Claude Ranoux et al., 1988, which utilizes maternal vaginal cavity for the incubation of gametes/embryos. The gas permeable device, allows CO2 from the vaginal epithelium for equilibration and maintenance of pH. Mild ovarian stimulation protocol was adopted to retrieve 3-5 oocytes. Semen sample should be prepared by density gradient method and 30,000 motile sperm should be inseminated per INVO cell. Loaded INVO cell must be positioned at fornix or upper vaginal cavity for incubation. After 72 hrs, the INVO cell device must be removed from the vaginal cavity, embryos can be loaded directly from the inner chamber by using a catheter to transfer into the uterus.

Advantages:
1. Growth factors and cytokines from the cumulus cells improve the embryo quality and implantation rates.
2. Culture under low oxygen concentrations improves the embryo quality.
3. INVO can be practiced without an advanced laboratory set-up thus its availability can be increased.
4. INVO has modified IVF protocol with improved results compared to conventional IVF.
5. Advantages of co-culture system and cumulus aided transfer is possible with INVO cell.