

Patients need more than just a meter

OneTouch® offers a support program to diabetic patients

- Caregiver support program
- Pharmacist training program
- Monitor against post-prandial glucose targets

Guidelines for glycaemic control: 2-hr postprandial glucose

ADA : <10mmol/L (<180 mg/dL)¹⁰

IDF : <7.8 mmol/L (<140mg/dL)⁵



SOME HIGHLIGHTS OF THE 27TH ANNUAL MEETING OF THE EUROPEAN SOCIETY OF HUMAN REPRODUCTION & EMBRYOLOGY (ESHRE)



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1/ Embryo culture represents one of the most important determinants of success in In- vitro Fertilization(IVF). Although **OXYGEN** is necessary for aerobic metabolism. Currently embryo culture systems utilize O₂ concentrations higher than those in vivo. The need to mimic the physiological environment of the oviduct has led to the development of low O₂ embryo culture systems (5% O₂), the effectiveness of which has not yet been adequately evaluated. Mitsoli et al (Thessaloniki, Greece) underwent a prospective randomized controlled study on 463 oocytes from 56 patients to examine if embryo quality score (embryo grade score multiplied by the number of blastomeres) after IVF/ICSI is associated with O₂ concentration during embryo culture. They found that low-oxygen culture conditions are associated with improved embryo quality on day 3 of embryo culture when compared with high O₂ culture conditions (p=0.02)

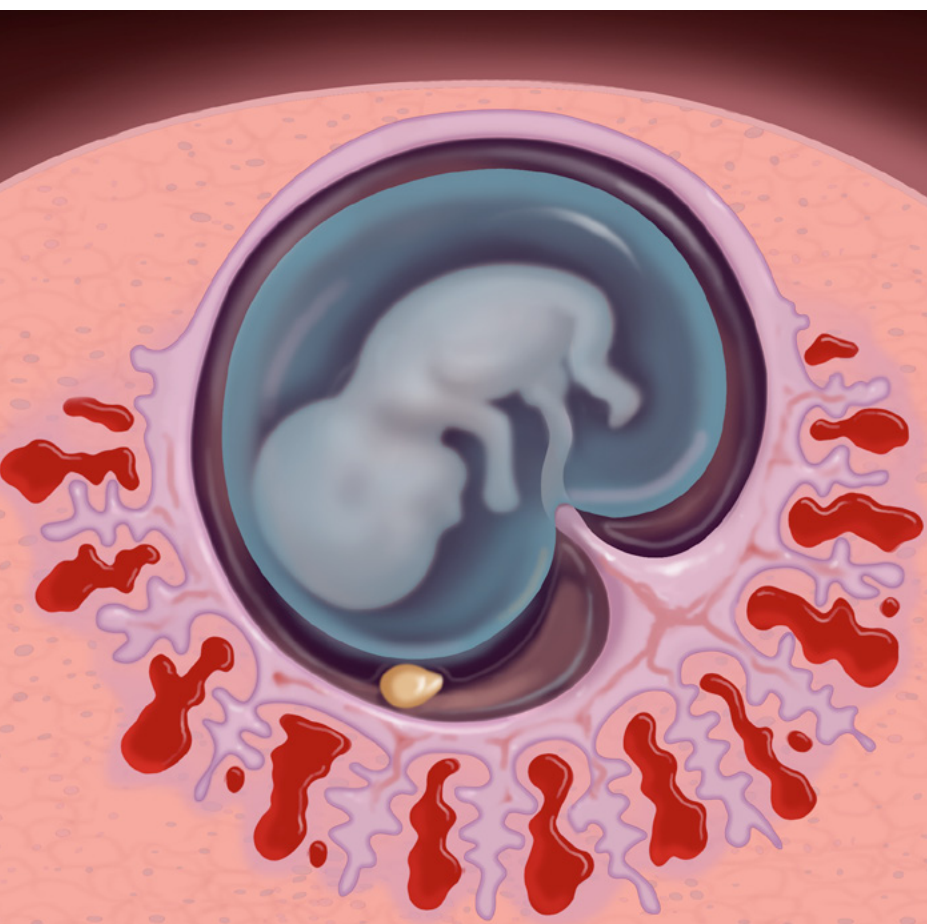
2/ **EMBRYOGEN** is a new medium with Granulocyte Macrophage-Colony Stimulation Factor (GM-CSF), introduced by ORIGIO company as the world's 1st natural growth factor medium with proven effect as a new solution for women who have suffered miscarriage. More than 20% of all pregnancies end in miscarriage, often due to Growth factor deficiency, impaired natural cell signaling, subop-

timal embryo development and poor uterus-embryo compatibility. A large 14 centers study enrolling 1,332 patients showed a 44% ongoing implantation increase at week 7 in women with previous miscarriage who used EMBRYOGEN (p=0.0001)

3/ **EMBRYOASSIST** (ORIGIO Company) is a sophisticated medium for cleavage (D2/D3) culture containing nutrients, antioxidants, vitamins and amino acids. Glutamine is a crucial component of IVF media. However, spontaneous breakdown of standard glutamine during culture and storage produces ammonium, affecting both shelf-life and performance of the medium. EMBRYOASSIST contains a stable Glutamine source which does not produce ammonium. EMBRYOASSIST allows easier selection of top quality embryos for single embryo transfer and for cryopreservation (while comparing EMBRYOASSIST and BLASTASSIST System Medium)

4/ Hammoud et al (Salt Lake City Utah, USA) presented a study on 170 men showing that men with **VITAMIN D** levels < 20 ng/ml or > 50 ng/ml exhibited abnormal semen parameters. Vitamin D levels were not correlated to reproductive hormone values indicating that the deleterious effect on sperm parameters is not hormonally mediated.

5/ Scientific evidence suggests that environmental endocrine-disrupting chemicals adversely affect reproductive function. **BISPHENOL A** (BPA) is a synthetic chemical with endocrine disrupting properties, widely used in lining of food cans and in the manufacture of polycarbonate plastics. Chronic low-level exposure to BPA is very prevalent and poses a potential risk to public. In experimental animals, there is accumulating evidence that BPA adversely affects the reproductive system by alteration of



ovarian steroidogenesis, meiotic spindle formation, and early oogenesis. Souter et al (Harvard, USA) found that BPA was detected in over 80% of 202 women undergoing fertility treatment. They found that there was a suggestive, non-significant trend towards lower antral follicle counts and a smaller ovarian volume with higher levels of BPA. Based on data on experimental animals that BPA may alter steroid signaling, there is the potential concern in humans of an accelerated follicle loss and reproductive aging.

6/ Filipini et al (Lugano/Switzerland) performed a study on 816 semen samples in men undergoing ICSI and found a higher incidence of miscarriages in couples with **HIGH-ER DNA FRAGMENTATION** without reaching statistical significance. These results also show that the Pregnancy Rate is independent from DNA fragmentation index.

7/ Munoz et al (Valencia, Spain) showed on 15 patients with **RECURRENT PREGNANCY LOSS** and homozygosity of MTHFR that lowering of **HOMOCYSTEINE** with Folic acid (5-MTHF) resulted in substantial reduction

of endometrial levels of Vascular endothelial Growth Factor (VEGF) both at mRNA and protein level. This suggests that hyperhomocystinemia-induced endothelial dysfunction could promote the development of infertility and recurrent pregnancy loss through VEGF induction of the maternal endometrium, causing a chronic vascular damage.

8/ Leonardi et al (Milano, Italy) showed that **OVARIAN HYPERSTIMULATION** during IVF does not modify the dimension of subserosal and intramural leiomyomas.

9/ Jo Varghese (Stockholm, Sweden) found leiomyomas regression upon **MIFEPRISTONE** treatment by down regulation of proliferation rather than induction of apoptosis. Alterations in gene expression are due to its anti-progestin nature rather than its anti-glucocorticoid action.

10/ Verstraeten (Ghent, Belgium) showed on 1,654 cycles that there is no clear correlation between high serum **ANTI-MULLERIAN HORMONE** (AMH) and the risk of ovarian hyperstimulation syndrome,

although it is a meaningful marker in estimating which patients can be considered as "poor responders".

11/ **ELONVA** (Corifollitropin alpha) was introduced by MSD pharmaceutical company as the Leaping forward of the IVF therapy. One injection replaces 7 daily injections of conventional Gonadotropin. The Engage trial is a double blind, randomized, multicenter trial comparing ongoing pregnancy rates and retrieved oocytes of ELONVA versus r-FSH. 1,506 patients were treated by ELONVA and 750 received r-FSH. The study showed 38.9% ongoing pregnancy rate per started cycle versus 38.1% with daily r-FSH with no statistical significance ($p=0.71$).

12/ **MENOPUR** 600 IU (menotropin/ Ferring) is a highly purified menotropin containing 600 IU FSH + 600 IU LH while MENOPUR 1,200 IU (menotropin) is a highly purified menotropin containing 1,200 IU FSH + 1,200 IU LH. MENOPUR therapy should start within the initial 7 days of the menstrual cycle in Assisted Reproductive Technologies.

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