

mini-incubators. These units have proven to be very gas efficient, only requiring tank replacement about every 12 to 14 days.

	Trt	Donor egg	≤ 34 yo	35-37 yo	38-40 yo	41-43 yo
# Patients	TG	29	69	38	49	41
	CO2	17	65	47	51	31
Mean ET #	TG	2.3	2.6	3.0	3.4	2.8
	CO2	2.7	3.0	3.8	4.0	4.0
+β-hCG	TG	25 (86%)*	53 (77%)	25 (66%)*	24 (47%)*	13 (32%)
	CO2	12 (77%)	47 (72%)	23 (49%)	18 (35%)	9 (29%)
LB/Ong.	TG	22 (76%)*	50 (73%)*	23 (61%)*	21 (43%)*	7 (17%)
	CO2	11 (65%)	38 (59%)	19 (40%)	11 (22%)	6 (19%)

\*Pregnancy rates were different (P<0.05) within column subgroups.

Pregnancy rates were higher (P<0.05), with fewer embryos transferred, for the TG grp in most age groups, especially in regards to Live birth/Ongoing pregnancies. The latter finding is due to fewer (P<0.05) biochemical and SAB pregnancies, consistent with published advantages of the TG/low oxygen tension system.

**CONCLUSIONS:** The new mini-Sanyo incubators are space efficient and have proven to be clinically effective. Outstanding pregnancy rates were achieved using a reduced oxygen tension/LG medium culture system. The inCu saFe™ stainless steel and SafeCell™ UV contamination control features were highly effective and not harmful to embryo development. The control panel is simple to adjust, and the water pan/level alert indicator is a helpful element in its User-friendly design.

Supported by: None.

## A-153

**COMPARISON OF EMBRYO DEVELOPMENT IN 2 COMMERCIAL CULTURE MEDIA.** R. Canseco-Sedano, J. A. Rosales-Delgado, O. E. Zarate-Guevara, L. E. Castillo-Rosas. Physiology of Reproduction, School of Veterinary Medicine Univ. of Veracruz, Veracruz, Mexico; Centro de Diagnóstico Ginecológico, Veracruz, Mexico.

**OBJECTIVE:** To determine if there was a difference in 2 commercial media, one from Vitrolife (G.1) and the other from In Vitro Care IVC2 in their ability to promote embryo development.

**DESIGN:** Prospective study.

**MATERIALS AND METHODS:** A total of 153 pronuclear stage embryos fertilized through ICSI from 20 patients, were assigned to be individually cultured in 20 microliter drops of G.1 or IVC2 media. One half of the zygotes from each patient was cultured in each medium. Morphology and quality was assessed every 24 h. Embryos were transferred or frozen on D3. Analysis of Variance was used to establish the effect of treatment on embryo development and Tukey test to determine significant differences.

**RESULTS:** We found no difference in development between the embryos cultured in both media (G.1=7.1± 0.3 cells on D3 vs. IVC2=6.4± 0.3; p>0.05). Age did not affect embryo development (25 to 29 yrs=7.3 ±0.4 cells on D3, 30 to 34 yrs=6.9±0.3, 35 to 39 yrs 6.5±0.5; p>0.05). On the other hand, cause of infertility significantly affected development (female factor 6.8±0.2 cells on D3, male factor 7.5±0.4, mixed factor 5.0±0.6; p< 0.01). Embryo quality was not affected by either culture media, age of patient or cause of infertility (p>0.05).

**CONCLUSIONS:** Both culture media proved to support embryo development satisfactorily. The age of the patients in this study did not affect development, however, cause of infertility proved to be the main factor affecting the development of zygotes produced through ICSI. In third world countries it is difficult to have a reliable source of supplies to do IVF. Therefore, we consider very important to test different media in each laboratory in order to be prepared to work with the most readily available culture medium.

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## A-154

**COMPARISON OF THE SUCCESS RATE BETWEEN THE USE OF SINGLE MEDIUM G-1.5 AND G-IVF/G-1.5 IN IVF LAB.** E. G. Ergin, Z. Öztel, A. Özay, M. Atay, K. Elter, H. M. Öz örnek. EURO-FERTIL Reproductive Health Center, Istanbul, Turkey; EUROFERTIL Reproductive Health Center, Istanbul, Turkey.

**OBJECTIVE:** The aim of this study is to compare pregnancy and implantation rates between using a single medium G-1.5 or G-IVF/G-1.5 from oocyte collection to embryo transfer.

**DESIGN:** Retrospective study.

**MATERIALS AND METHODS:** A total 148 ICSI cycles which have been performed, between August 2007 and April 2008 were analyzed in the present study. Study inclusion criteria were; patient's age less than 40 years and cycles in which of 2 or 3 fresh embryos were transferred. Patients underwent controlled ovarian hyperstimulation followed by transvaginal follicular aspiration. In the first group all oocytes were cultured in 1,0 ml G-IVF medium (Vitrolife, Sweden) until oocyte denudation. All denuded oocytes were transferred into the culture medium G-1.5 (Vitrolife, Sweden) and after ICSI, all injected oocytes were placed in G-1.5 again until the embryo transfer. In second group only G-1.5 medium was used from oocyte collection until embryo transfer. G-IVF was not used in this group. Pregnancy and implantation rates were compared between groups. All results were analyzed by using the Chi-square and student t-tests and P < 0.05 was considered statistically significant.

**RESULTS:** Table illustrates the results of using G-1.5 and G-IVF/G-1.5.

	G-IVF/G-1.5	G-1.5	P value
No. of ICSI cycles	98	50	NS
Patient age(y)	30.3	29.2	NS
No. of cumulus oocyte complex	10.9	11.7	NS
No. of injected oocytes	9.1	10.2	NS
No. of fertilized oocytes	6.6	7.3	NS
No. of embryos per transfer	2.8	2.8	NS
Clinical pregnancy rate per transfer (%)	44.9	48.0	NS
Implantation rate (%)	22.2	27.1	NS

NS:Not significant.

**CONCLUSIONS:** Results in both groups were comparable. The use of G-1.5 only, during the culturing of the oocyte and the embryo did not effect the results. Although no statistically significant difference was found, using a single medium seems to have a tendency to increase implantation rates. Embryos might be effected by being exposed to a different composition during culturing. In addition, using a single medium facilitates the lab procedure.

Supported by: None.

## A-155

**DOES BLASTOCYST TRANSFER INCREASE THE INCIDENCE OF MONOZYGOTIC TWINS?** A. L. E. da Costa, I. S. Sene. CRIAR - Clínica de Reprodução Humana, Teresina, Piauí, Brazil.

**OBJECTIVE:** The purpose of this study was to determine the incidence of monozygotic twins (MZT) is higher in pregnancies conceived from blastocyst transfer than after day 2 or 3 transfer.

**DESIGN:** Retrospective review of the incidence of MZT in pregnancies generated in our center during the period of March 2002 to December 2007.

**MATERIALS AND METHODS:** We compared the incidence of MZT in 52 gestations that resulted from blastocyst transfer with 198 pregnancies produced by transfer of 4 to 8 cell embryos. Follicular development was induced with r-FSH. Blastocyst were cultured in sequential media using G1 up to 72 hours and G2 to day 5 (IVF Science Scandinavia, Gothenburg Sweden).

**RESULTS:** 2 of 52 pregnancies generated by blastocyst transfers were complicated by MZT gestation (3,8%). In comparison only 1 of 198 pregnancies from 4 to 8 cell (0,5%), a difference that is statistically significant (p<0,001 with Yates correction).

**CONCLUSIONS:** Our results confirm the frequency of MZT was significantly higher when transfers were performed at the blastocyst stage, suggesting that extended in-vitro culture of embryos may be associated with alterations of zona pellucida and the hatching process.

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