

FP4

SIMPLIFICATION OF IVF. 6. THE TYPE OF SYRINGE USED FOR OOCYTE ASPIRATION Y. Yavas¹, S. Roberge¹, I. Lacanna¹, F. Khamsi^{1,2} and J. Wong^{1,2}. Toronto Fertility Sterility Institute¹ and Division of Endocrinology, Department of Medicine and Department of Obstetrics and Gynecology, University of Toronto²

Objectives: Previously we had demonstrated that aspiration of oocytes directly into pre-warmed glass syringes containing Co₂ equilibrated medium resulted in equal pregnancy rate in comparison to the classic method of oocyte aspiration through a tube and into test tubes. In the present study we wished to compare the pregnancy rate when plastic syringes were used versus glass syringes.

Methods: The glass syringes utilized were 50 ml in volume. They were soaked in distilled water and ES7X cleaning solution. Subsequently they were rinsed in milli-Q water and then were sterilized in dry heat oven for 3 hours at 180°. 50 ml plastic syringes were pre-sterilized and manufactured by Franklin Lakes, NJ. Approximately 2 hours before the IVF both types of syringes were placed in a 38°C oven. Immediately prior to oocyte retrieval they were each filled with 5-10 ml of Co₂ equilibrated human tubal fluid (HTF) type culture medium. Randomly a glass or a plastic syringe was used for the right or the left ovary. The syringes were attached to a single bore oocyte retrieval needle and, under ultrasound guidance, the follicles were entered with application of aspiration. The syringes were taken directly to the laboratory from the oocyte retrieval room and oocyte identification was carried out. A statistical analysis was made comparing formation of grade 1 and 2 embryos between the two types of syringes used. There were 51 patients in whom there were glass syringes containing oocytes. There were 40 patients in whom we had plastic syringes containing oocytes.

Results: Per patient an average of 4.1 oocytes were retrieved with glass syringes and 4.8 oocytes were retrieved with plastic syringes. This was not significant statistically with a P value of 0.42. The number of embryos formed per patient with retrieval into glass was 2.8 and the number of embryos formed per patient in plastic syringe was 3.4. Again this difference was not statistically significant with a P value of 0.37. The fertilization rate for glass was 0.72 and for plastic was 0.72 which were again not statistically significant with a P value of 0.10. Conclusion: There is no difference between retrieval of oocytes in to plastic versus glass containers. However, technically it was more difficult to retrieve into plastic because the neck of the plastic syringes bent during the retrieval whereas the neck of the glass syringes was firm.

FP5

SIMPLIFICATION OF IVF. 7. COMPARISON OF HUMAN SERUM ALBUMIN PURCHASED COMMERCIALLY VERSUS PATIENT'S OWN SERUM AND COMPARISON OF COMMERCIALLY PURCHASED CULTURE MEDIUM VERSUS CULTURE MEDIUM PRODUCED ON SITE . S. Roberge¹, Y. Yavas¹, P. Sharazi¹, I. Lacanna¹, J. Wong^{1,2} and F. Khamsi^{1,2}. Toronto Fertility Sterility Institute¹ and Division of Endocrinology, Department of Medicine and Department of Obstetrics and Gynecology, University of Toronto².

Objective: To compare the effectiveness of preparation of culture medium locally versus culture medium purchased commercially.

Methods: Human tubal fluid (HTF) type of medium was either prepared locally in our laboratories or purchased from In Vitro Care Inc. For all of the procedures Co₂ equilibrated HTF was utilized. The oocytes were aspirated into pre-warmed syringes containing Co₂ equilibrated HTF medium. The culture was carried out under oil in microdrops of 100 microlitres. The medium used for embryo transfer was also the same. The allocation between the two types of media was random. We also conducted a comparison between use of commercially purchased human serum albumin (Bayer) versus preparation of patient's own serum as a supplement. The allocation between the two groups was done randomly.

Results: Per patient 8.2 oocytes were placed in commercial media versus 6.7 in our own media. The difference was statistically not significant at 0.46. The number of grade 1 and 2 embryos formed for the commercial medium was 5.9 per patient and for our own medium was 4.7 per patient which were not statistically significant at 0.44. The fertilization rate for commercially obtained medium was 65% versus our own medium at 78%. This was not statistically significant at 0.19. Comparing the result of commercially obtained human serum albumin (HSA) versus patient's own serum (PS) the number of oocytes retrieved per patient was 7.3 oocytes for HSA and 7.6 for PS which were not statistically significant at 0.86. The formation of grade 1 and 2 embryos for HSA was 4.9 versus 5.6 for PS which were not statistically significant at 0.67. The fertilization rate was 0.73 for HSA and 0.70 for PS which not statistically significant at 0.82.

Conclusion: The use of commercially available culture medium did not change the fertilization rate and using patient's own serum did not alter the fertilization rate. There may be less worry on behalf of the patient with respect to transmission of infectious disorders if patient's own serum is utilized although this does require a little more work for the technical staff.