

BFS SUMMER COLLEGE 2006 - POSTER PROGRAMME



Assisted Conception

D1

A new technique for the sterilisation of the ultrasound transducer used in egg retrieval procedures in IVF

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Introduction: The egg collection procedure plays a key role in every In Vitro Fertilization cycle. The laparoscopic method originally developed by Steptoe and Edwards in the 1970's for aspirating oocytes from graafian follicles has evolved to the trans-vaginal ultrasound-guided egg retrieval procedure currently used for the majority of cases. A key element for this procedure is the ultrasound transducer which is inserted vaginally covered with a latex cover to enable accurate needle entry and precise follicle aspiration. Unlike other materials that are also necessary for the oocyte retrieval procedure, the ultrasound transducer needs a uniquely designed technique for cleaning and sterilisation between cases.

Methods: The traditional technique that involves bathing the ultrasound transducer in an antiseptic solution for a certain amount of time has been replaced by a new sterilisation technique, using recent innovations in sterilisation technology and particularly the Tristel Sterilising Wipe (TSW) system. An observational study of the new technique for a period of one year and retrospective comparison with an historical control group has been carried out, with fertilization and pregnancy rates as primary end points, but also measuring parameters like cost effectiveness, time consumption and convenience of use.

Results and Discussion: So far, results have shown no difference in oocyte fertilization rates or pregnancy rates between the new technique and the traditional one, proving that the Tristel Sterilising Wipe (TSW) system is efficacious and safe for use in an IVF setting. The new technique has also been found to be faster, easier to use and more cost effective than the traditional one. Final results will be presented on completion of the study.

An IVF laboratory should always use materials, supplies and methodology that maintain the prospective developmental potential of each oocyte. The Tristel Sterilising Wipe (TSW) system seems to be a superior alternative to the traditional technique for ultrasound transducer sterilisation in transvaginal oocyte collection procedures.

P2

The place of clomifene for ovulation induction in an era of high-tech assisted reproduction

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Introduction: The clinical use of medical induction of ovulation is becoming increasingly questioned in the current era of assisted conception. This study aims to assess the effectiveness and outcome of clomifene therapy as a first line of treatment for couples with anovulatory (WHO II) and unexplained infertility at our subfertility clinic.

Methods: Eighty couples planned for clomifene therapy were included in this study. Analysis included: age, parity, menstrual pattern, duration of infertility, BMI, PCO status, dose of clomifene, number of treatment cycles and treatment outcome.

Results and Discussion: Total number of women treated was 76 (4 never started treatment for social reasons). Pregnancy rate was 70% for women using 50 mg of clomifene, compared with 38% for those using 100 mg. Pregnancy rate was also higher in nulliparous women, those who had oligomenorrhea, and low BMI. No cases of ovarian hyperstimulation occurred. Clinical pregnancy rate was 49% (37/76). Nine women had early miscarriage (24%) and one had an ectopic pregnancy. Live birth rate was 36% (27/76), one had a singleton live birth after having an ectopic pregnancy and 2 women had twins (7%), both were dichorionic. One set of twins was delivered at 34 weeks by CS for IUGR with hypospadius in one baby, while the other set of twins were delivered by CS at 36 weeks. Cost of treatment (clomifene only) per baby was £40. Proper selection of couples for relatively simple, less invasive and less expensive treatment with adherence to good practice guidelines achieves pregnancies in a more 'natural' way and reduces stress, complications for women and the overall cost to the NHS.