Letters to the Editor

A randomized trial of blastocyst culture and transfer in in-vitro fertilization

Dear Sir,

We read with interest the recent paper which describes a prospective randomized trial of blastocyst culture and transfer (Gardner et al., 1998). The authors report conducting this trial in patients with a ‘moderate to good response’ to gonadotrophin stimulation, admitting that the criteria used to enter the study resulted in a selected patient group. In their conclusions, they report the need to evaluate the efficacy of blastocyst culture and transfer in patients who exhibit a ‘poor response’ to gonadotrophins in further prospective trials.

This paper requires a further characterization of the selection process. For example, it was stated in the Materials and methods section that patients were required to have at least 10 follicles >12 mm in diameter, visible by transvaginal ultrasound, on the day of human chorionic gonadotrophin (HCG) administration. In the first paragraph of the Results section, however, the authors report that patients were allocated to either arm of the trial on day 8 of their cycle. Therefore, one must assume that either all patients received HCG on day 8 of their stimulation cycle or that the selection criteria were actually utilized at a time point prior to HCG in some instances.

Although there is only limited data on stimulation characteristics, our impression is that this selected group of patients may be best characterized as relatively ‘high’ responders. This is due to the fact that both patient groups began with high mean numbers of pronuclear embryos (10.9 ± 0.7 for day 3 transfer group, 11.6 ± 0.8 for day 5 transfer group). One of the authors’ main observations is that there is a significant linear relationship between the number of pronuclear embryos and the number of blastocysts formed (P < 0.01). Therefore, a selected group of patients destined to have relatively high numbers of pronuclear embryos would not only make the likelihood of failing to have a blastocyst available for transfer a low probability, but would also allow for the transfer of blastocysts selected for better morphological features in many circumstances.

In order to compare the participants in the present study with the general population of women undergoing in-vitro fertilization (IVF), a more detailed description of the responses to controlled ovarian hyperstimulation is needed (i.e. serum oestradiol concentrations on the day of HCG as well as number of oocytes retrieved). In addition, how many patients who were interested in the blastocyst trial did not meet the entry criteria and were excluded?

While the authors’ work is quite encouraging, the need for a prospective trial of blastocyst culture and transfer on an unselected patient population is obvious.

References


Mark A. Damario¹ and Daniel A. Dumesic
Department of Obstetrics and Gynecology, Mayo Clinic, Rochester, MN 55905, USA

¹To whom correspondence should be addressed