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Letter

The applicable scope of dual trigger: which protocol shall we compare with?

To the Editor

With interest, I read the report by Zhang et al. (2017) published recently in *RBMOnline*, showing the beneficial effect of dual trigger on the number of oocytes retrieved and on egg maturity. However, the choice of control groups may make the conclusion of little clinical value.

Any type of combined therapy should show advantages in efficacy or safety compared with the use of the individual components alone before transferring the therapy to a clinical setting. In this case, the missing comparison was the use of gonadotrophin-releasing hormone agonist (GnRHa) alone. Many studies have already shown that triggering with GnRHa alone may produce more mature oocytes (Humaidan et al., 2009). Zhang et al. (2017) reported similar results with dual trigger, but only by comparing with human chorionic gonadotrophin (HCG) alone, not GnRHa alone. Therefore, it is difficult to distinguish whether GnRHa alone or the combination of two medicines contributes most benefit.

Dual trigger was mainly used to overcome the adverse effect of GnRHa on corpus luteum function (Lin et al., 2013) and the occasional suboptimal response to trigger (Meyer et al., 2015), both of which were not evaluated and discussed in the article. We cannot conclude any effect of dual trigger on improving pregnancy outcomes of fresh embryo transfer (ET) or lowering the incidence of unsatisfactory response to trigger. And with the combination of a high dose of HCG (5000 IU/10000 IU), the study group could hardly reduce the incidence of ovarian hyperstimulation syndrome. The pregnancy outcomes of frozen ET compared in this study were also determined by embryo quality and endometrial preparation rather than the medicine used for trigger. Therefore, I suggest that further studies are needed to evaluate the effect of dual trigger in fresh ET, with both HCG and GnRHa triggering as the control groups.

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