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LETTER

Estradiol valerate pretreatment in GnRH-antagonist cycles

To the Editor

We read with great interest the Commentary of Griesinger and Kolibianakis (2012) about scheduling oocyte retrieval in GnRH antagonist cycles. Recently, the results of a randomized trial by our group were published, reporting a significant decrease in oocyte retrieval during weekend days following administration of estradiol valerate in the luteal phase of the cycle prior to the stimulated cycle (Blockeel et al., 2012). The concept is interesting, since the inability to program the start of gonadotrophin stimulation in GnRH antagonist cycles and hence to minimise weekend oocyte retrieval are a major impediment to the widespread implementation of the GnRH antagonist protocol in fertility clinics. Griesinger and Kolibianakis conclude in their Commentary that no type of pretreatment aiming to allow initiation of stimulation on a certain day will avoid weekend oocyte retrieval when predefined criteria for triggering final oocyte maturation are used. We would like to comment on several aspects mentioned in this Commentary.

Scheduling ovarian stimulation and oocyte retrieval in IVF is important, both for the patient, who seeks to undergo reproductive treatment at her own convenience, and for the clinic, to organise the workload. Therefore, several attempts have been made to bring the schedule of egg retrievals in a GnRH antagonist protocol under improved control. Griesinger is the first author of an interesting systematic review and meta-analysis (Griesinger et al., 2008) as well as an updated meta-analysis (Griesinger et al., 2010), describing the negative effect of the oral contraceptive pill as a pretreatment of the GnRH antagonist protocol. Briefly, besides an increased duration of stimulation and gonadotrophin consumption, the ongoing pregnancy rate was found to be significantly lower. Therefore, alternatives to scheduling ovarian stimulation need to be found, such as estradiol valerate, without the gestagen component of the oral contraceptive pill, which could indeed exert a negative impact on endometrial receptivity in the subsequent cycle (Griesinger et al., 2010).

In the vast majority of normal responder patients [e.g. 83.6% reported by Borm and Mannaerts (2000) and 90% reported by Fauser et al. (2010)], the duration of the FSH

stimulation period is between 7 and 11 days. This implies that if stimulation starts on a Saturday, patients can undergo gonadotrophin stimulation for 7–11 days without oocyte retrieval on a weekend day. If stimulation starts on a Sunday, patients can undergo gonadotrophin stimulation for 6–10 days without oocyte retrieval on a weekend day. Moreover, since the delay or advancement of one day has no impact on the pregnancy outcome (Tremellen and Lane, 2010), it is indeed possible to avoid most of the oocyte retrievals on weekend days.

As observed in our manuscript, we agree that avoidance of 100% of oocyte retrievals on a weekend day still remains unlikely and practically impossible. This is the reason why the term “avoidance” was used instead of “exclusion”. Nevertheless, only one out of 37 oocyte retrievals took place on a weekend day, which illustrates the benefit of the pretreatment.

To conclude, pretreatment with estradiol valerate is an efficient way of scheduling GnRH antagonist ovarian stimulation cycles. Nonetheless, additional research needs to determine whether this planning tool is reliable in terms of pregnancy rates and live birth rates, since the sample size of our trial was too small to draw conclusions regarding outcomes.

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