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## Risk factors for ovarian hyperstimulation syndrome: relevance of the number of follicles, serum estradiol levels and the number of oocytes collected

Dear Sir,

We read with interest Dr Bodri's editorial on our recent report 'Severe early ovarian hyperstimulation syndrome (OHSS) following GnRH agonist trigger with the addition of 1500 IU hCG' (Bodri, 2013; Seyhan *et al*., 2013). However, we did question some of his comments.

While Dr Bodri describes all other studies evaluating OHSS risks using this protocol as containing 'normo-responders' or just 'high responders' he calls our patients 'very high responders' and 'not suitable candidates for the Humaidan protocol (Bodri, 2013). Dr Bodri's opinion seems to be solely based on our collecting a higher number of oocytes compared with the study of Humaidan (2009). Although the number of oocytes collected is a well-known risk factor for OHSS, there are other risk indicators including serum estradiol levels and the number of growing follicles (Papanikolaou *et al*., 2006). While serum estradiol levels are determined using standardized techniques around the world, and even physicians and technicians with limited experience can count follicles, the number of oocytes collected depends on the experience of both the physician and the embryologist. Experience in aspiration of small follicles and in identifying oocytes surrounded with sparse cumulus cells is especially important for oocyte collection from women with polycystic ovaries, which contains numerous small follicles besides larger ones. We think the number of collected oocytes is more likely to vary between clinics and is a less reliable indicator of ovarian response than serum estradiol levels or the number of growing follicles in this context.

We believe the higher number of oocytes collected in our series is simply due to McGill team's extensive experience of oocyte collections during *in vitro* maturation cycles. Moreover, an overall mean serum estradiol level in our series (4891 pg/ml) was not higher than that reported in Dr Humaidan's series (5066.7 pg/ml) (Humaidan, 2009). In Dr Humaidan's study, 12 women were recruited based on having ≥25 follicles of ≥11 mm (Humaidan, 2009). To the contrary, in our series only 5 women had ≥25 follicles of ≥12 mm. Dr Humaidan did not report either the maximum serum estradiol levels or the maximum number of oocytes collected in his series. This prevents a more detailed comparison of the two study populations. We would also like to highlight that of the five patients in our study who developed severe early OHSS, one had 23 oocytes collected and a second had 26 oocytes collected. Therefore, we disagree with Dr Bodri's categorization of our series as 'very high responders' while Dr Humaidan's series with higher number of follicles and apparently similar serum estradiol levels were defined as 'high responders'.

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## Raman microspectroscopy: a method with great promise but which also needs circumspection

Sir,

Although the excitement surrounding the potential of a new analytical technique can be heady, this must be tempered by the necessities of validation, verification and the establishment of its veracity through the

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