

## Letter to Editor on "Correlation of the Day 3 FSH/LH Ratio and LH Concentration in Predicting IVF Outcome"

We read with interest the study by Prasad et al. (1), on Correlation of Day 3 FSH/LH Ratio and LH Concentration in Predicting IVF Outcome. In this study, they demonstrated that elevated day 3 FSH/LH ratio is associated with inferior outcome in IVF treatment cycles and it could be used as an additional predictor of decreased ovarian reserve. Surprisingly, two of our clinically relevant studies went unnoticed. While studying patients undergoing COH for IVF, with a favorable prognosis a priori, day 3 FSH: LH ratio, but not LH level, was found to predict IVF treatment outcome. Moreover, the FSH/LH ratio cutoff levels differ between those using the GnRH-agonist or GnRH-antagonist COH protocols. We demonstrated that patients undergoing ovarian stimulation using the GnRH antagonist with FSH/LH ratios  $>2$ , or using agonist protocols with FSH/LH ratios  $>3$ , achieved significantly lower pregnancy rates (2). Furthermore, in a subsequent study, we observed significantly higher number of top-quality embryos, and higher implantation and clinical pregnancy rates in patients undergoing COH for IVF, using HMG compared with rFSH (3).

### Conflict of Interest

The authors declare no conflict of interest.

### References

1. Prasad S, Gupta T, Divya A. Correlation of the day 3 FSH/LH ratio and LH concentration in predicting IVF outcome. *J Reprod Infertil.* 2013;14(1):23-28.
2. Orvieto R, Meltzer S, Rabinson J, Gemer O, Anteby EY, Nahum R. Does day 3 luteinizing-hormone level predict IVF success in patients undergoing controlled ovarian stimulation with GnRH analogues? *Fertil Steril.* 2008;90(4):1297-300.
3. Orvieto R, Homburg R, Meltzer S, Rabinson J, Anteby EY, Nahum R. HMG improves IVF outcome in patients with high basal FSH/LH ratio: a preliminary study. *Reprod Biomed Online.* 2009;18(2):205-8.

### Giuseppe Morgante \*

- Department of Obstetrics and Gynecology, University of Siena, Policlinico Santa Maria Le Scotte, Siena, Italy

\* Corresponding Author: Giuseppe Morgante, Department of Obstetrics and Gynecology, University of Siena, Policlinico Santa Maria Le Scotte, 53100 Siena, Italy  
E-mail: morgante@unisi.it