

Does freeze all policy eliminate OHSS???

“It ain’t necessarily so...”

Zeev Blumenfeld¹ 

Received: 17 August 2015 / Accepted: 24 August 2015 / Published online: 7 September 2015
© Springer Science+Business Media New York 2015

To the Editor: I have read with interest the recent publication by Santos-Ribeiro et al. [1] and congratulate the authors for the in-depth search for a genetic explanation for the ovarian hyperstimulation syndrome (OHSS) despite using the combination of GnRH antagonist, GnRH agonist trigger, and “freeze all” policy. As the authors have correctly stated, “This approach, combined with the elective cryopreservation of all oocytes/embryos, referred to by some as the “OHSS-free clinic” [2], had effectively abolished the incidence of severe early OHSS until recently, when the first cases of OHSS requiring hospitalization were reported” [1]. Like most reproductive endocrinologists, experiencing ART/IVF, the authors were probably surprised when severe OHSS occurred despite this approach, leading them to search for an explanation to the unexpected OHSS. However, they did not find such a resolution, since no known genetic variants associated with OHSS predisposition were found [1]. The main problem with the policy of using this approach is an incorrect sense of security, believing that indeed this policy has completely eliminated the risk of severe OHSS. However, it has not, as suggested by the five recent publications, including the present [1, 3–6], of OHSS necessitating hospitalization, despite GnRH agonist triggering instead of hCG. Retrospective evaluation of the patient’s characteristics could have led to an appreciation of very high risk of OHSS

due to PCOS, very high AMH of 18.28 ng/mL, and an antral follicle count of 40. In such a high-risk case, probably 75 units of FSH to start with would have been more adequate, and in case of need, the step-up protocol would have been safer than the step-down approach.

It is suggested that in high-risk cases of OHSS, extreme caution is needed, and the “OHSS free” approach is not always guaranteed.

References

1. Santos-Ribeiro S, Polyzos NP, Stouffs K, De Vos M, Seneca S, Tournaye H, et al. Ovarian hyperstimulation syndrome after gonadotropin-releasing hormone agonist triggering and “freeze-all”: in-depth analysis of genetic predisposition. *J Assist Reprod Genet.* 2015;32:1063–8.
2. Devroey P, Polyzos NP, Blockeel C. An OHSS-free clinic by segmentation of IVF treatment. *Hum Reprod.* 2011;26(10):2593–7. doi:10.1093/humrep/der251.
3. Ling LP, Phoon JW, Lau MS, Chan JK, Viardot-Foucault V, Tan TY, et al. GnRH agonist trigger and ovarian hyperstimulation syndrome: relook at ‘freeze-all strategy’. *Reprod Biomed Online.* 2014;29(3):392–4. doi:10.1016/j.rbmo.2014.05.012.
4. Gurbuz AS, Gode F, Ozcimen N, Isik AZ. Gonadotrophin-releasing hormone agonist trigger and freeze-all strategy does not prevent severe ovarian hyperstimulation syndrome: a report of three cases. *Reprod Biomed Online.* 2014. doi:10.1016/j.rbmo.2014.07.022.
5. Fatemi HM, Popovic-Todorovic B, Humaidan P, Kol S, Banker M, Devroey P, et al. Severe ovarian hyperstimulation syndrome after gonadotropin-releasing hormone (GnRH) agonist trigger and freeze-all approach in GnRH antagonist protocol. *Fertil Steril.* 2014;101(4):1008–11. doi:10.1016/j.fertnstert.2014.01.019.
6. Seyhan A, Ata B, Polat M, Son WY, Yarali H, Dahan MH. Severe early ovarian hyperstimulation syndrome following GnRH agonist trigger with the addition of 1500 IU hCG. *Hum Reprod.* 2013;28(9):2522–8. doi:10.1093/humrep/det124.

✉ Zeev Blumenfeld
z_blumenfeld@rambam.health.gov.il

¹ RAMBAM Med Ctr, Haifa, Israel