DOES DOUBLE TRIGGER (GNRH AGONIST + HCG) IMPROVE OUTCOME IN POOR RESPONDERS UNDERGOING IVF-ET cycle? A PILOT STUDY

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Objective: Many strategies are offered for the treatment of poor responders. However, no compelling advantage for one stimulation protocol over another has been hitherto established. In the present study we aimed to evaluate the role of different modes and timings of final follicular maturation trigger on IVF cycle outcome of poor responder patients.

Design: A prospective randomized controlled study

Materials and Methods: Poor responder patients, according to the Bologna criteria, undergoing controlled ovarian hyperstimulation (COH) using the GnRH antagonist protocol were randomly assigned to 3 different final follicular maturation trigger modes and timings: hCG 36 hrs before oocyte pick-up (OPU) (hCG trigger); GnRH agonist (GnRHa) 36 hrs before (OPU) and hCG on day of OPU (GnRHa trigger); and GnRHa and hCG, 40h and 34h prior to OPU, respectively (double trigger).

Results: Patients characteristics and COH variables are shown in the table

Trigger	hcg	GnRH agonist	Double trigger
N	9	10	12
Age	38.3	42.2	40.3
BMI	25.7	25.8	24.6
Follicles ≥15 on day of trigger	2.1	2.9	2.5
Peak E2 levels (Pmol/L)	2733	3243	2236
Oocytes retrieved (n)	2.0	3	2.8
TQE (n)	0.5	0.5	1.2
ET (n)	1.4	1.4	1.9
Retrievals that ended without oocytes (empty follicle)	3/7 (43%)	1/10 (10%)	1/9 (11%)
clinical pregnancies	0/7 (0%)	0/10 (0%)	2/12 (16.7%)

Patients undergoing the Double trigger demonstrated a trend toward a higher number of top quality embryos (TQE) with an acceptable pregnancy rate.

Conclusions: Double trigger offers an additional benefit to poor responder patients. Larger studies are required to support this new concept prior to its implementation to IVF practice.

Support: "None".