METHYLPREDNISOLONE PLUS TIAPROFENIC ACID STRONGLY DIMINISH E2 SERUM CONCENTRATION IN OVARIAN HYPERSTIMULATION SYNDROME PATIENTS.

Objective. To examine the effect of methylprednisone and tiaprofenic acid on estradiol concentratration in OHSS.

Methods. Cohort of 560 patients under IVF treatment. Ovarian stimulation was performed using the GnRH antagonist protocol. Gonadotropins doses were adjusted individually according to serum estradiol (first serum value) and sonographic measurement of follicles. Methylprednisolone 500mg intramuscular once a day for 3 days and tiaprofenic acid 300 mg twice a day for 3 days were initiated with E2 > 3500 pg-ml. E2 serum control was taken 48 hours after. Ovulation was induced with triptorelin acetate 0.2 mg 34 hours before egg retrieval. IL-6, IL-8 and AMH concentrations were also determined.

Statistical analysis. Descriptive statistic and Pearson-correlation were used to evaluate statistical significance (p < 0.05).

Results. 32 patients fulfilled the criteria for OHSS. Basal E2 mean concentration was 4280.57 ng/ml (3048-10352ng/ml). After treatment the follow-up mean E2 concentration decreased by 50% (2119.54 ng/ml)(p < 0.015). Patients with AMH values >3 pg/ml receiving the same amount of gonadotropin as those with lower values had a more severe OHSS. All patients had lower IL-6 and IL-8 serum concentrations.

Conclusion. Methylprednisolone and tiaprofenic acid favored a decrease in E2 serum concentrations associated with a less severe OHSS, concomitantly proinflammatory cytokines IL-6 and IL-8 also diminished. It is possible that our results were secondary to the modulation of E2-regulated transcription factors associated with endothelial protection and inflammatory processes.