

## P38. vascular endothelial growth factor antagonist reduces the early onset and the severity of ovarian hyperstimulation syndrome Links

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**Background** Ovarian hyperstimulation syndrome (OHSS) is the most serious complication of controlled ovarian stimulation (COH) during assisted reproductive technology (ART) protocols. This syndrome is a result of ovarian expression of vascular endothelial growth factor (VEGF), which increases vascular permeability. **Objectives** To evaluate the efficiency of prophylactic and therapeutic use of cabergoline in women with higher risk of developing OHSS. **Materials and methods** In this prospective randomized study, 146 women undergoing in vitro fertilization (IVF) cycles with GnRH agonist protocols with a higher risk of OHSS diagnosed during the HCG day administration (more than 18 follicles observed larger than 12 mm in diameter during COH and/or estradiol levels of 3000-3500 pg/ml, previous episodes of OHSS). Women were randomly divided in two groups. The first group included 78 women who received 0.5 mg per day of cabergoline (Dostinex<sup><sup></sup></sup>) orally for 7 days starting from hCG administration day. The second group included 68 women who received no medication treatment. Overall, in each group 25 patients have developed OHSS. This defines subgroup 1 that includes 25 cases of OHSS obtained in group 1 and subgroup 2 where 25 cases of OHSS obtained in group 2. Early OHSS was defined as being when the onset of the syndrome was initiated during the first 9 days after hCG administration and late OHSS was defined as being when the onset of the syndrome was initiated from 10 days after hCG administration. **Outcome measures** of this study were the incidence of moderate and severe OHSS, early or late OHSS and pregnancy rates. **Results** There was no evidence of a statistically significant reduction in the incidence of OHSS in cabergoline group (32.05% vs. 36.76%;  $P > 0.05$ ). Late OHSS was observed in 60.6% of cases in cabergoline group while 39.4% of cases in the other group ( $P = 0.036$ ). Early OHSS decreased significantly ( $P < 0.05$ ) in the cabergoline group. Severe OHSS cases were more common within subgroup 2 than subgroup 1 (32% vs. 8%,  $P = 0.000$ ). There was no difference in clinical pregnancy rates (PR) and miscarriages rates between the two subgroups. **Conclusions** The cabergoline administration (Dostinex<sup><sup></sup></sup>) for patients with high-risk of OHSS can reduce the rate of early OHSS and its severity in GnRH agonist IVF cycles, but cannot prevent the incidence of OHSS. Copyright © 2016 Elsevier Masson SAS

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