

# ORAL MICRONIZED PROGESTERONE FOR PREVENTING LH SURGE: MORE CONVENIENT THAN GnRH ANTAGONIST IN OOCYTE PRESERVATION CYCLES

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## Abstract Body

Although traditionally GnRH has been considered to control LH surge in controlled ovarian stimulation (COS) treatments, oral micronized progesterone has been shown to be an effective alternative with excellent results with some other very interesting advantages when a "freeze all" strategy is advised. If efficacy would prove to be similar, there will be obvious advantages for the preferential use of micronized progesterone over the antagonist protocol: oral administration is preferred over subcutaneous injection, and total cost of medication would be lower. This would be particularly interesting in all "freeze all" protocols such as women undergoing ovarian stimulation for fertility preservation, preimplantation genetic screening and oocyte donation programs.

We retrospectively analyzed all fertility preservation cycles in our institution from 2018 to 2021.

88 patients were under the Antagonist cycle: LH suppression was accomplished by subcutaneous injections of 0.25 mg of Ganirelix starting in the presence of follicles >14mm or E2 levels >400 pg/ml continued until GnRH triggering. 9 patients were canceled (no response in 7, follicular asynchrony in one and LH surge in one patient). From 79 egg collections, 689 oocytes were retrieved (8,72, range 1-26). All but two patients had vitrification: 77 patients, 512 eggs (6,65, range 1-22) so 74% could be preserved. (512/689). From 88 patients we obtained 512 vitrified eggs (5,82)

96 patients were under the Micronized Progesterone cycle: endogenous LH suppression was accomplished by oral administration of micronized progesterone (200 mg) once a day at bedtime, from stimulation day 1 and continuing until ovulation triggering. 12 patients were canceled (no response in 9, follicular asynchrony in 3 and no LH surges observed). From 84 egg collections, all but one had 826 oocytes retrieved (8,60, range 1-37). All but one patient had vitrification: 82 patients, 687 eggs (7,16, range 1-35) so 83% could be preserved. (687/826). From 96 patients we obtained 687 vitrified eggs (7,16)

Oral micronized progesterone was as effective as GnRH antagonist in terms of total eggs recovered per patient (8,60 vs 8,72) but better vitrification ratio, seeming to allow better egg maturation (83 vs 74%) and better global results (7,16 vs 5,82)

**CONCLUSION:** Oral micronized progesterone is not only cheaper and more convenient than GnRH antagonist but also might offer better results in oocyte preservation.