Application of Dienogest as a part of a progestin-primed ovarian stimulation( PPOS) protocol for IVF

以異位寧作為黃體素起始排卵誘導

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# Study question:

Can Dienogest be used as an alternative progestin in a progestin-primed ovarian stimulation (PPOS) protocol?

# Study Design, Size and Duration:

We presented a case that has history of adenomyosis under medical treatment with Dienogest. Thereafter, she underwent immediately PPOS with dienogest followed by IVF with the freeze-all strategy. Eventually, she successfully reach live birth.

## Materials, Setting, Methods:

A case report

## Main result- Case presentation:

This 33 year-old female has past history of severe endometriosis and adenomyosis s/p laparoscopic bilateral cystectomy. The endometrioma recurred after operation and trans-vaginal ovarian endometrioma aspiration and sclerotherapy with 75% alcohol was performed. Dienogest was prescribed after aspiration and patient decided to receive In vitro fertilization and embryo transfer(IVF-ET) after 4 months of medical intervension. was suggest due to severe endometriosis and pelvic adhesion. Ovulation induction was carried out with PPOS protocol and Dienogest was used for suppression of LH surge. Totally 10 oocytes were collected and 8 blastocysts were frozen. Frozen embryo transfer was carried out in the next cycle after oocyte pick up. 2 mg Estradil valerate tablets three times a day was started from the 3rd day of the cycle. Endometrium preparation was supposed to be ready when the thickness has reached 7mm with triple line appearance. Vaginal micronized P was added at a dose of 200mg three times a day for 5 days before embryo transfer. Two blastocysts were transferred and one sac was found at 5<sup>th</sup> gestation week. She finally gave birth to a healthy term baby without any obstetric complications.

### Conclusion:

Dienogest has been approved as efficient progestin for symptoms control in patient with adenomyosis or endometriosis. Our case demonstrated that for patient with adenomyosis or endometriosis, Dienogest can be used as a therapeutic agent and also a progestin for suppressing a premature LH surge during ovarian hyperstimulation at the same time. The successful pregnancy in frozen embryo transfer immediately after the stimulation cycle has proved Dienogest has no detrimental effect on the endometrial receptivity for embryo implantation. Accordingly, we suggest this protocol can be applied to all patients with endometriosis or adenomyosis, especially when they had a poor ovarian reserve is poor.

