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比較使用Duphaston與Utrogestan 在人工受精後作為黃體期補充的臨床差異

Comparison the clinical outcome of Dydrogesterone (Duphaston®) and Micronized progesterone(Utrogestan) for luteal support in intrauterine insemination (IUI) cycles

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■ Objective

Progesterone plays a crucial role in the maintenance of pregnancy. Progesterone modulates the maternal immune response to prevent fetal rejection and relaxes the uterine smooth musculature. Dydrogesterone is a retro-progesterone; it is structurally and pharmacologically very similar to natural progesterone but has good oral bioavailability. Previous studies has shown dydrogesterone can inhibit the production of Th1 cytokines such as interferon (IFN)-gamma and tumor- necrosis factor (TNF)-alpha and stimulating the secretion of Th2 cytokines such as interleukin (IL)-4 and IL-6 to maintain pregnancy.The aim of this study is to compare the clinical outcome of IUI when luteal phase support with either dydrogesterone or micronized progesterone.

■ Material & Method

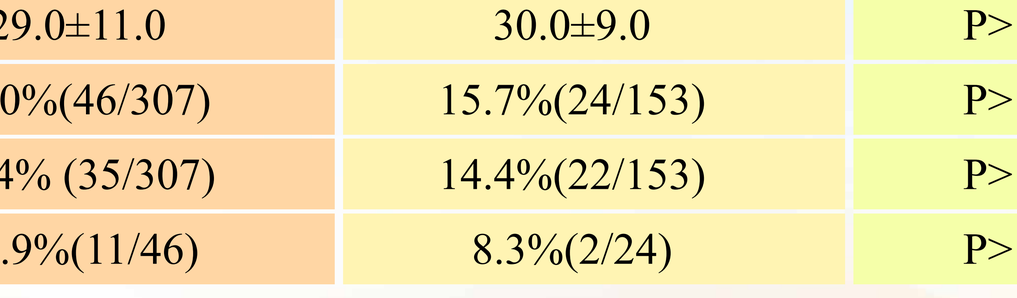
From January 2012 to November 2013, data of women who received artificial insemination husband (AIH) in our hospital were retrospectively analyzed. Only female younger than 38 years old with no previous spontaneous abortion history were enrolled in this study. Patients were excluded from the study if less than 2 mature follicles were noted on the day of HCG injection. A total of 460 patients were qualified and divided into two groups. Group I included 307 persons who received micronized progesterone 1# tid and Group II included 153 female who received dydrogesterone 1# bid for luteal support after IUI respectively. Ovulation induction was individualized with either clomiphene citrate plus r-FSH or HMG. Ovulation was triggered by 10.000 IU hCG when at least two follicles ≧18 mm were observed and a IUI was performed 36 hours later. The primary outcome was the incidence of clinical pregnancy rate(gestational sac visible on sona), ongoing pregnancy rate(> 12th weeks) and early pregnancy loss rate. All results were analyzed by using the two-sample t-test, x2-test, Fisher's exact test and $P<0.05$ was considered statistically significant.

■ Results

	Micronized progesterone	Dydrogesterone	P value
No. of Cycles	307	153	
Age(y/o)	33.5±3.8	33.1±3.4	P> 0.05
Body mass index(kg/m^2)	22.0±3.6	22.3±3.7	P> 0.05
Dose of gonadotrophins(IU)	533±242	513±184	P> 0.05
No. of follicles	4.4±3.4	4.9±3.1	P> 0.05
Total sperm count (x10^6)	29.0±11	30.0±9.0	P> 0.05
Progressive Sperm motility(%)	29.0±11.0	30.0±9.0	P> 0.05
Clinical pregnancy rate(%)	15.0%(46/307)	15.7%(24/153)	P> 0.05
On going pregnancy rate(%)	11.4% (35/307)	14.4%(22/153)	P> 0.05
Early pregnancy loss rate(%)	23.9%(11/46)	8.3%(2/24)	P> 0.05

■ Conclusion

There is no significant difference in clinical pregnancy rate in IUI when luteal support with either dydrogesterone or micronized progesterone. Although statistically not significant, dydrogesterone seems to be more effective in preventing early pregnancy loss from our preliminary result. Treatment with dydrogesterone appears to have beneficial effects in maintaining pregnancy. Moreover, oral dydrogesterone is more tolerable to most patients due to the absence of side effects such as dizziness as in oral micronized progesterone. Limitations of this study included the randomization of the patient which might need more prospective studies to justify our observation.



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