

Individualized Controlled Ovarian Stimulation

2018 Asia Pacific Initiative on Reproduction Congress (ASPIRE) – Oral

Non-Ultrasound Based Ovarian Stimulation Protocol Revealed Comparable Outcomes With Ultrasound Strategy: An Alternative Patient Friendly Protocol

Yen-Ming Peng, Lin-Kin Wong, Hsing-Hua Lai, Meng-Ju Lee
Stork Fertility Center, Stork Ladies Clinic, Hsinchu, Taiwan.

Background and aims

Many oocyte donors were reluctant to compromise with routine follicle tracking via transvaginal ultrasound scan. Therefore, to develop a patient friendly examination, an non-ultrasound (NU) protocol for monitoring ovarian stimulation is necessary. This retrospective analysis tried to evaluate the stimulation efficiency and subsequent outcomes of NU strategy.

Materials and methods

Donors aged 20 to 35 with anti-Mullerian hormone (AMH) between 2.5 - 7 ng/mL were included in this study. Each donor was administered with corifollitropin alfa on the day 2 or 3 of menstrual cycle and without routine GnRH antagonist during stimulation. The ovarian stimulation of NU donors (n=224) was monitored only through evaluating serum hormone E2 and LH, on the day 7 after corifollitropin alfa administration. Transvaginal ultrasound scan combined with hormone evaluation was utilized to monitor the follicular development of ultrasound group (n=132).

	Control	Non-ultrasound
Age	23.99±2.99	24.58±4.76
BW	52.62±5.67	54.03±7.06
AFC	14.33±3.51	N/A
AMH	6.96±3.46	7.07±3.70
Basal LH (mIU/ml)	5.06±2.90	2.35±3.62
Elonva	145.96 ± 13.70	139.29 ± 20.56
r-FSH (IU)	513 ± 207	528 ± 192
r-LH (IU)	256 ± 104	264 ± 96
SD (days)	10.39 ± 1.7	10.12 ± 0.73

no significant difference were found between two groups

Results

The average retrieved oocyte and mature oocyte between NU and ultrasound groups were 24.95 vs. 24.97 and 18.86 vs. 17.95, respectively. The laboratory outcomes including fertilization rate (FR, 80.08% vs. 80.24%), good embryo rate (GER, 61.07% vs. 59.70%), good blastocyst rate (GBR, 67.17% vs. 62.69%) and utilization rate (UR, 53.79% vs. 50.30%) were comparable with the ultrasound group. The patients characteristics including age (24.58 ± 4.76 vs. 23.99 ± 2.99), body weight (52.62 ± 5.67 vs. 54.03 ± 7.06 kg), late follicular phase LH (3.76 ± 2.81 vs. 4.93 ± 3.70 mIU/mL) and late follicular E2 (3431 ± 1864 vs. 3005 ± 1861 pg/mL), were equal between the two groups.

Conclusions

Instead of using transvaginal ultrasound scan, E2 and LH were used for monitoring ovarian stimulation. The retrieved oocytes, mature oocytes, FR, GER and GBR were equal between the two groups. All the results indicated that NU procedure is a practical and convenient strategy for women being reluctant to compromise routine transvaginal ultrasound scan.

Laboratory Outcomes

