

CAN PATIENT SELF-SCANS USING A HOME VAGINAL ULTRASOUND DEVICE BE USED TO MONITOR THE OVARIAN STIMULATION IN ART?

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AIM

To evaluate the reliability of self-scans with a home ultrasound device, for ovarian and endometrial monitoring during ART.

BACKGROUND

Ovarian follicles and endometrial thickness (EMT) are monitored repeatedly during ART, imposing a significant burden on patients and clinics. Self-scans with a home ultrasound device can relieve this burden.

METHODS

IVF patients were trained to visualize uterus and ovaries using the PulsenmoreFC device and were randomized to independent use (IU) or remote online clinician guidance(CG). Before each in-clinic scan patients obtained pelvic scans which compared to the in-clinic scans Gold Standard (GS) for visualization, follicle number, size, and EMT. A satisfaction questionnaire was administered.

RESULTS

24 patients completed the study, 11-CG and 13-IU. Image quality score >3 was achieved in 100% of the CG and in 87% of the IU scans.

CG-scans AFC correlated better with the GS than IU-scans AFC. Correct identification of the first follicle >14mm was achieved in 100% of the CG and in 92% of the IU patients. EMT from CG scans was better correlated with the GS than the IU-scans. The number of stimulated follicles obtained from CG-scans was better correlated with the GS than IU-scans. The oocytes/follicles ratio was 1.19 for the GS and 1.28 for the self scans (1.06 for CG-scans, 1.9 for IU-scans). The MII/follicles >14mm ratio was 1.12 for the GS and 1.49 for the self scans (1.27 for CG-scans, 1.69 for IU-scans). 89% of patients felt comfortable to self-scan.

CONCLUSIONS

Reliable folliculometry and EMT measurements can be obtained from patient self-use vaginal ultrasound scans. Online guidance enhanced accuracy. Thus safe remote management of ovarian stimulation can be realized, reducing costs and discomfort for patients and clinicians.

Presented at: 40th Annual European Society of Human Reproduction & Embryology (ESHRE)

