

## **P150. Right or Left Ovary: Which has better ovarian response? A study of ART outcome in IVF patients in HSNZ Kuala Terengganu, Malaysia.**

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### Context:

Though the right and left ovaries are embryologically and histologically similar, there are existing structural and functional differences between left and right ovaries. This may influence their response to ovulation induction or hyperstimulation. Many authors have studied the comparison between these ovaries among patients with unilateral diseased or absent ovary, rarely examined within the same patients.

### Objective:

To compare the differences between the right and left ovarian responses in patients undergoing ART procedure, in-vitro fertilization (IVF) or intra-cytoplasmic sperm injection (ICSI).

### Method:

Prospective observational study.

### Patients:

The selected subfertile women, who received ART treatment at The Reproductive Services Unit of Hospital Sultanah Nur Zahirah (HSNZ), a Malaysian hospital public regional ART centre providing subsidised ART treatments. There were 90 consecutive IVF cycles over 2 years included in this study.

### Intervention(s):

This was a non-interventional study.

### Main Outcome Measured:

The subjects were divided into 2 groups either Right or Left ovaries. The baseline characteristics and the embryology outcome of COH and IVF/ICSI were analysed between the groups. The number of ovarian follicles >10mm on ovulation trigger day, number of ovarian follicles >16mm on ovulation trigger day, number oocytes collected, number of mature oocytes, fertilization rates, number of Grade 1 zygote, number of embryos produced and the available number of top quality embryos.

### Results:

The groups were comparable in terms of age, body mass index (BMI) and ovarian reserve. The baseline Day 2 serum E2 levels and duration of ovarian hyperstimulation were also similar across all groups. The mean dosage of stimulation drugs used were comparable. There were more mean total oocytes (6.06 vs 5.54) and similar number of mature oocytes retrieved from right than left ovaries but the difference was not significant,  $p=0.397$ . The fertilization rate was similar between oocytes of both groups. The number of top quality embryos was comparable in both groups, 1.69 vs 1.83,  $p=0.64$ .

### Conclusion:

Both right and left ovaries yield similar ovarian response and no embryological significant difference in IVF/ICSI patients.

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