

# Are intra follicular estradiol and oocytes quality in women undergoing assisted reproductive technology different between the right and left ovaries? An observational study

Robabeh Taheripناه

**ABSTRACT:** Controlled Ovarian Stimulation (COS) for In-Vitro Fertilization (IVF) or Intracytoplasmic Sperm Injection (ICSI) is considered as an assisted reproduction technology. There are established structural and biological differences between both ovaries which may affect their responsiveness to COS. Whether the right or the left ovary responds superior to COS is a question which is unresolved in the literature. The present study was conducted as a prospective observational to make a comparison between right and left ovaries' oocytes based on oocyte quality and follicular fluid estradiol level. A total of 100 infertile women who had referred to Infertility and Reproductive Health Research center at Shahid Beheshti University of Medical Sciences, Tehran, Iran, were investigated. The total number of very good and good oocytes were 63.01% vs. 50.3%, and immature and

interstitial oocytes were 36.99% vs. 49.6% in the right and the left ovaries, respectively. There were no significant differences between oocyte rates between the two ovaries ( $P > 0.05$ ). Good and very good quality oocytes and fertilization rate ( $P < 0.001$ ) are higher in the right ovary compared with the left ovary; however, no significant difference was observed between the right and the left ovaries in oocyte yields and cleavage rates. Moreover, despite higher follicular estradiol levels in the left ovary, there was no relationship noticed between follicular fluid estradiol and oocyte quality among oocytes of each ovary.

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### Biography

Narges Malih has completed her MD at the age of 25 years from Kurdistan University of Medical Sciences, Iran and Community Medicine Speciality from School of Medicine, Shahid Beheshti University of Medical Sciences, Iran. She has published more than 18 papers in reputed journals and has been serving as an executive manager of Social Determinants of Health Journal.

### Recent Publications

1. Fukuda M, Fukuda K, Andersen CY, Byskov AG. Right-sided ovulation favours pregnancy more than left-sided ovulation. *Hum Reprod* 2000;15(September (9)):1921-6.
2. Fukuda M, Fukuda K, Yding Andersen C, Byskov AG. Does corpus luteum locally affect follicular growth negatively? *Hum Reprod (Oxford, England)* 1997;12 (May (5)):1024-7.
3. Potashnik G, Insler V, Meizner I, Sternberg M. Frequency, sequence, and side of ovulation in women menstruating normally. *Br Med J (Clin Res Ed)* 1987;294 (January (6566)):219.

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Social Determinants of Health Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran



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