

Micro-RNAs in IVF outcome

Sir,

The advancement on assisted reproductive technologies increased hope to childbearing in couples of infertile. *In vitro* fertilization (IVF) is one of these technologies. Of note, currently the best success rate of IVF is approximately 30% for female age 35.^[1] The blastocyst establishment inside maternal uterus is very important in reproduction procedure at the early stage of pregnancy. Furthermore, there are many factors may be affected to reception of embryo in endometrium of uterus.^[2,3] Although some of the factors is still unknown. However, several of investigations revealed that miRNAs have potential regulatory in endometrial receptivity.^[4-6] MiRNAs are small non-coding RNA molecules that regulate mRNA translation initiation and degradation.^[7] In one of recent study, Revel *et al.* were able to identify a number of miRNAs that were dysregulated in the repeated implantation failure (RIF). The RIF is a major problem encountered in IVF.^[8] Furthermore, with assessment the crucial regulatory roles of miRNA in gene expression in receptivity, we are able to increased success rates of IVF outcome as an optimistically. However, miRNAs could be introduced as novel molecular markers for assessment human blastocyst receptivity in RIF patients.

Saeid Ghorbian, Ahmad Poursadegh Zonouzi¹

Department of Biology, Bonab Branch, Islamic Azad University, Bonab, ¹Department of Cellular and Molecular Biology, Faculty of Science, Azarbaijan Shahid Madani University, Tabriz, Iran

Correspondence to: Dr. Saeid Ghorbian,
Department of Biology, Bonab Branch,
Islamic Azad University, Bonab, Iran.
E-mail: ghorbian20@yahoo.com

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