

Practical Recommendations

1. When planning infertility treatment, both the severity of endometriosis and the patient's previous infertility treatment history must be taken into account. Based on the results of this study, we can state that patients with suspected endometriosis and several unsuccessful IVF procedures should consider combined treatment for endometriosis.
2. Patients undergoing infertility treatment should be advised on the possible impact of lifestyle factors on treatment outcomes. Women should be encouraged to maintain their usual active lifestyle—or at the very least, not reduce their physical activity.
3. Molecular studies of the endometrium must take into account the effects of menstrual cycle phases on gene expression in the endometrium. Therefore, when using previously collected endometrial biopsies in research, the specific phase of the menstrual cycle during which the biopsy was taken should be identified. Our study showed that an endometrial receptivity test, for example, is suitable for this purpose.
4. The molecular mechanisms of endometriosis require continued investigation. Comparative gene expression studies between endometrial tissue and endometriotic lesions — used to identify target genes — have become exhausted and have not yielded practically applicable results for everyday clinical practice. Therefore, new research directions are urgently needed. One potential strategy could involve exposing endometrial and lesion cells to various chemical compounds, which may help identify new factors involved in the development of endometriosis and improve our understanding of the disease's molecular basis.