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Fresh versus frozen embryo transfer in endometriosis-Systematic review

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Alexandra Ioannidou¹, Nikolaos Machairiotis¹

¹National Kapodistrian University of Athens



Alexandra Ioannidou

National Kapodistrian University of Athens

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We use this protocol and it's working

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Abstract

Background: Endometriosis is an estrogen-dependent inflammatory disorder that is typically related to infertility, for which assisted reproductive technologies are needed. Fresh embryo transfer can result in hormone levels that are supraphysiological, and this can have an impact on receptivity. Alternatively, frozen embryo transfer can be performed and completed in a separate cycle, but it is unknown if there is a comparable success rate for conception. **Methods:** The search in PubMed, Europe PMC, and Google Scholar will be done comprehensively using the keywords "endometriosis," "fresh versus frozen embryo transfer," and "fertility outcomes" for articles published from 2010 until January 2026. Only those studies will be included that provide information specifically on endometriosis-patients. Data will be extracted by two authors using predefined criteria. Despite widespread use of IVF in this population, optimal embryo transfer strategies remain controversial. Traditionally, embryos have been transferred in the same cycle as ovarian stimulation (fresh embryo transfer). However, controlled ovarian hyperstimulation induces supraphysiological hormone levels, which may adversely affect endometrial receptivity. These pathophysiological features raise concerns that the endometrial environment during fresh cycles may be suboptimal for implantation in this subgroup. Frozen embryo transfer (FET) has been proposed as an alternative approach, where embryo transfer is performed in a subsequent cycle in a more physiologic or controlled endometrial environment. For women with endometriosis, FET may theoretically reduce the adverse effects of ovarian stimulation on the endometrium and inflammatory/hormonal deregulation at the time of implantation. Extracting data of existing studies is challenged by heterogeneity in disease severity, stimulation protocols, and study design. Given the lack of consensus and the growing clinical use of FET, a systematic synthesis of the available evidence is justified. Our systematic review aims to compare reproductive outcomes following fresh versus frozen embryo transfer in women with endometriosis.

Guidelines

This systematic review will be carried out strictly according to the guidance by the PRISMA Statement.



Methods

- 1 A systematic search of three major databases—PubMed, Europe PMC, and Google Scholar—will be performed with the keywords "endometriosis, fresh versus frozen embryo transfer, fertility outcomes". All available articles will be considered for this study from 2010 until January 2026.
- 2 Articles have to be full-length research papers written in English, whereas abstracts presented at scientific meetings, case reports and review articles will be excluded. In addition, only those studies will be included that provide information specifically on patients with endometriosis. Rest of patient-groups will be excluded. The quality and potential risk of bias for these studies will be assessed using the ROBINS-I tool.
- 3 Specific data will be extracted from each publication in duplicate, including publication date, authorship, studied population, methodologies employed, criteria for inclusion or exclusion (I/E), sample type, and primary outcome measures.

Results

- 4 Results will be presented in a standardized fashion and the publication and author data, demographics, metrics, and key findings of the included studies will be tabulated to optimize readability.

Discussion

- 5 A critical appraisal of the included studies will be undertaken.

Conclusion

- 6 In this section, we will recapitulate the key findings of our research.