Jurnal Keperawatan *Priority*, Vol 9 No.1, Januari 2026
ISSN 2614-4719

Management Strategies for Endometriosis in Women: Literature Review

Ermiati[1*], Umi Alfiah[2], Rasyadan Savero Islamey[3], Rika Rahmawati[4]
[1]Departement of Maternity, Faculty of Nursing, Universitas Padjadjaran, Indonesia
[2-4]Faculty of Nursing, PSDKU Pangandaran, Universitas Padjadjaran, Indonesia
Email: ermiati@unpad.ac.id

ABSTRACT

Endometriosis is a chronic, estrogen-dependent gynecological disorder affecting women of reproductive age and is associated with persistent pain, organ dysfunction, and infertility. Despite the availability of various treatment options, its management remains challenging due to complex pathophysiology and variable responses to therapy. This literature review aims to summarize recent evidence on management strategies for endometriosis and to highlight their clinical implications. A descriptive literature review was conducted using a systematic search of four databases which are PubMed, Scopus, EBSCOhost, and ScienceDirect for articles published between 2020 and 2025. Following the PRISMA 2020 guidelines, an initial search identified 45,014 records. After screening titles and abstracts and assessing full-text eligibility, six primary studies met the inclusion criteria and were included in the final synthesis. The included studies were analyzed thematically and categorized into five main therapeutic approaches: hormonal therapy, immunological therapy, antioxidant therapy, surgical therapy, and traditional or complementary therapy. Overall, these strategies demonstrated potential benefits in reducing pain, improving fertility-related outcomes, and lowering postoperative recurrence when applied in appropriate clinical contexts. Rather than indicating a single optimal treatment, the findings emphasize the importance of individualized and multimodal management tailored to symptom severity, reproductive goals, and treatment tolerance. This review contributes to the existing literature by integrating diverse and emerging management strategies into a cohesive framework that supports clinical decision-making. Clinically, the findings underscore the value of patient-centered care, careful monitoring of treatment effects, and interdisciplinary collaboration, including psychosocial support, to optimize long-term outcomes for women with endometriosis.

Keywords: endometriosis, management strategies, hormonal therapy, immunological therapy, complementary therapy, women's health

INTRODUCTION

Endometriosis is widely recognized as a chronic and complex gynecological condition that poses significant challenges in women's reproductive health. Endometriosis is an estrogen-dependent gynecological disorder characterized by the presence of endometrium-like tissue outside the uterine cavity, predominantly in the pelvic region (Imperiale et al., 2023; Laganà et al., 2019; Patton et al., 2016). This ectopic tissue most commonly involves the ovaries, pelvic peritoneum, and surrounding reproductive structures. As a chronic condition affecting women of reproductive age, endometriosis represents a significant clinical challenge in gynecology

and reproductive health (Mariadas et al., 2025; Symons et al., 2018; Tan et al., 2022). Clinically, endometriosis is associated with severe pelvic pain, dysmenorrhea, dyspareunia, and dysfunction of adjacent organs such as the gastrointestinal and urinary tracts (Retis-Resendiz et al., 2025; Szukiewicz et al., 2021). These manifestations often result in persistent symptoms that interfere with daily activities and substantially reduce physical, emotional, and social quality of life. Beyond its symptomatic burden, endometriosis imposes long-term psychosocial stress on affected women, emphasizing the need for comprehensive and effective management strategies.

Epidemiologically, endometriosis affects approximately 6–10% of women of reproductive age worldwide and is frequently associated with infertility, with an estimated 25–50% of affected women experiencing difficulties in conception (Bonavina & Taylor, 2022; Moïse et al., 2025; Moradi et al., 2021). In Indonesia, although large-scale national prevalence data are still limited, clinical reports from referral hospitals indicate a growing number of diagnosed endometriosis cases among women of reproductive age. This increase may be related to improved diagnostic awareness, greater access to specialized gynecological services, and delayed diagnosis due to the nonspecific nature of symptoms. The rising number of cases highlights endometriosis as an emerging public health concern at both national and global levels, with implications for women's reproductive health, quality of life, and healthcare resource utilization. These conditions emphasize the need for strengthened surveillance, early detection strategies, and comprehensive management approaches within the Indonesian healthcare system.

Current management of endometriosis primarily involves hormonal therapy and surgical intervention. Hormonal treatments, including combined oral contraceptives and progestins, are commonly used as first-line therapy for pain control, while laparoscopic surgery is performed to excise endometriotic lesions and improve reproductive outcomes (Alonso et al., 2024). However, these approaches are often limited by adverse effects, progesterone resistance, recurrence of symptoms, and variability in individual treatment response, indicating the need for alternative or adjunctive therapeutic options. Previous literature reviews have predominantly focused on single treatment modalities or specific clinical outcomes, such as pain reduction or fertility improvement. Consequently, evidence regarding the integration of emerging therapies, including immunological, non-hormonal, and complementary approaches, remains fragmented. This literature review addresses this gap by synthesizing recent primary

studies that evaluate diverse management strategies for endometriosis from a multidimensional perspective.

Therefore, this review aims to summarize recent evidence on effective management strategies for endometriosis. By integrating findings from medical, surgical, and complementary interventions, this study contributes to a more comprehensive understanding of endometriosis management. The results are expected to support clinicians and healthcare practitioners in evidence-based decision-making and to inform future research directions in this field.

METHODS

This study was conducted as a literature review with a descriptive approach. A systematic literature search was performed using four scientific databases: PubMed, Scopus, EBSCOhost, and ScienceDirect. The search strategy was structured using Boolean operators (AND, OR). The key terms included endometriosis (endometriosis, endometrioma), outcome (pelvic pain, infertility), intervention (management, treatment, therapy), and population (women, female). The inclusion criteria comprised primary research articles published between 2020 and 2025, written in English or Indonesian, available in full-text open-access format, and specifically addressing management strategies for endometriosis. Articles were excluded if they were review articles, editorials, study protocols, conference abstracts, or if they did not report clinical outcomes related to endometriosis management.

The article selection process followed the PRISMA 2020 flow (**Figure 1**). The initial database search identified 45,014 records. After the removal of duplicates and preliminary filtering based on publication year and access availability, 3,322 records underwent title and abstract screening. Of these, 3,255 records were excluded due to irrelevance to the study focus. Full-text assessment was conducted on 67 articles, of which 54 articles were excluded because the full text was unavailable. Subsequently, 13 articles met the eligibility criteria and were assessed for methodological relevance. From these, seven articles were excluded because they were review studies or did not provide primary clinical outcome data related to endometriosis management. Six articles fulfilled all inclusion criteria and were included in the final synthesis. Data from the included studies were extracted and analyzed descriptively by summarizing study characteristics, types of interventions, and reported outcomes. The findings were then synthesized thematically to identify key evidence-based approaches to endometriosis management and to draw clinically relevant conclusions.

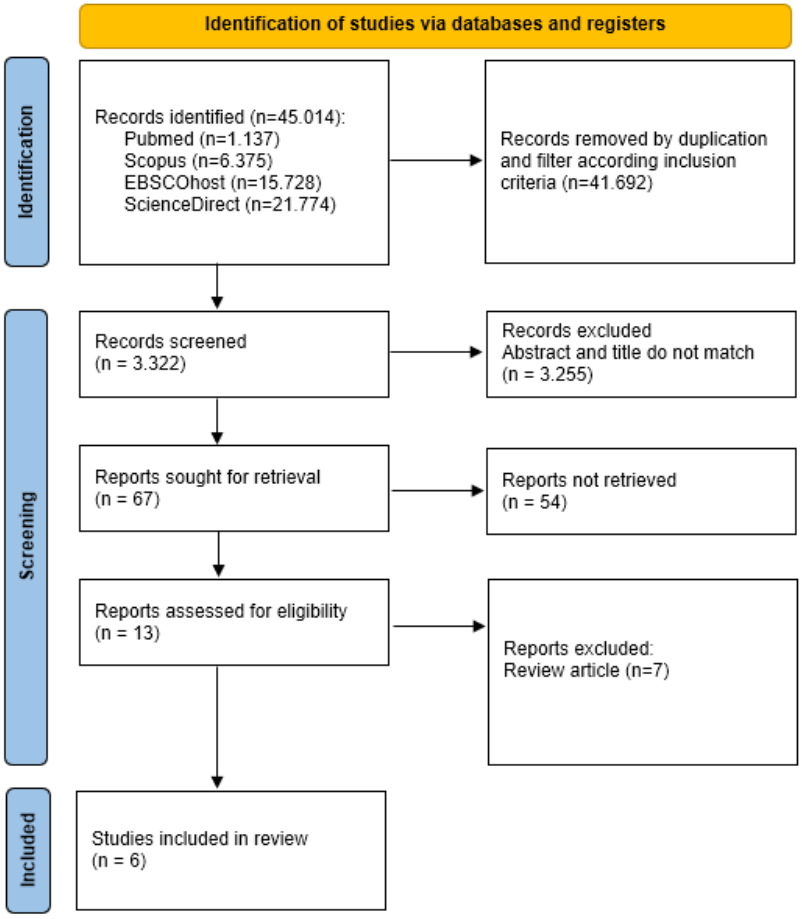

Figure 1. PRISMA flow selection process

RESULTS

Six articles that satisfied the inclusion criteria were chosen for additional examination out of all the papers discovered during the search procedure. Figure 1 illustrates the article selection procedure. After the selection process, the articles were extracted by presenting the author's data, year, type of research, sample, intervention, and findings. The analysis of the articles can be seen in **Table 1**.

Table 1. Summary of article findings

Authors, Year	Study design	Sample	Intervention	Findings
Liu et al. (2025)	Retrospective cohort study	141 women with endometriosis and/or adenomyosis who underwent Frozen Embryo Transfer (FET) from January 2021 to June 2023	Peri-implantation administration of TNF-α inhibitor (adalimumab) during the Frozen Embryo Transfer (FET) cycle	Significantly increased implantation rates and clinical pregnancy rates in the group receiving TNF-α inhibitors (28.09% vs 49.18% for implantation, 42.11% vs 60.71% for clinical pregnancy)
Zheng et al. (2023)	Randomized controlled trial (RCT)	600 patients with stage III-IV endometriosis diagnosed by laparoscopy	SanJieZhenTong capsules or oral contraceptive pills administered after 3 cycles of GnRH agonist therapy, followed by maintenance treatment for approximately 52 weeks	Decreasing the recurrence rate of endometriosis after surgery, and improving the quality of life for patients using SanJieZhenTong capsules.
Tian et al. (2025)	Retrospective cohort study	30 patients with ovarian endometriomas who underwent surgery during pregnancy	Laparoscopic surgical removal of ovarian endometriomas performed during the first–second trimester of pregnancy (approximately 12–25 weeks of gestation)	The pregnancies progressed with good outcomes, although two patients experienced post-operative recurrence.
Chiara et al. (2025)	Case study	1 female patient, 33 years old, undergoing endometriosis treatment after surgery	Hormonal therapy with estradiol valerate (EV) and dienogest administered for 21 months after surgery	Treatment with estradiol valerate and dienogest for 21 months. Eye symptoms of diplopia and metamorphopsia occurred, which disappeared after stopping treatment with dienogest, which is suspected to have caused Central Serous Chorioretinopathy (CSC)
Amini et al. (2021)	Randomized placebo-controlled clinical trial	60 women of reproductive age (15-45 years) with stage 1-3 endometriosis and pelvic pain	Antioxidant supplementation with Vitamin C (1000 mg/day) and Vitamin E (800 IU/day) administered for 8 weeks	Significant reduction in MDA (malondialdehyde) and ROS (reactive oxygen species) levels, as well as a decrease in pelvic pain, dysmenorrhea, and

Authors, Year	Study design	Sample	Intervention	Findings
				dyspareunia in the treatment group compared to placebo
Becker et al. (2024)	Long-Term Extension Study	802 women who completed the previous SPIRIT study, with endometriosis and related pain	Elugolix combination therapy (40 mg relugolix, 1 mg estradiol, 0.5 mg norethisterone acetate) administered once daily for up to 104 weeks (2 years)	Significant improvement in reducing dysmenorrhea pain, NMPP (non-menstrual pelvic pain), and dyspareunia; 91% of patients were opioid-free and 75% were analgesic-free at the end of the study

DISCUSSIONS

Findings and Strategic Management of Endometriosis

This review shows that endometriosis cannot be managed effectively with a single type of treatment. Instead, a strategic and combined approach is needed. Based on the six included studies, effective management strategies can be grouped into hormonal therapy, immunological therapy, surgical therapy, antioxidant therapy, and traditional or complementary therapy. The choice of treatment should be adjusted to each patient's symptoms, disease severity, and reproductive goals.

Hormonal therapy remains a central component of endometriosis management, particularly for long-term pain control. Relugolix combination therapy demonstrated significant reductions in dysmenorrhea, non-menstrual pelvic pain, and dyspareunia, while also decreasing dependence on opioids and other analgesics, indicating its value as a strategic option for chronic symptom management (Becker et al., 2024). However, the occurrence of adverse effects in some hormonal regimens highlights the importance of careful patient selection and monitoring (Chiara et al., 2025). These results indicate that relugolix combination therapy may offer a balanced approach between efficacy and tolerability, particularly for patients requiring long-term symptom control.

Immunological therapy, specifically the use of TNF-α inhibitors, represents an emerging strategy in patients with endometriosis-associated infertility. Peri-implantation administration of TNF-α inhibitors was associated with improved implantation and clinical pregnancy rates in women undergoing frozen embryo transfer, suggesting that immune modulation may be beneficial in selected reproductive settings (Liu et al., 2025). These findings indicate that excessive inflammatory responses may impair endometrial receptivity and implantation in women with endometriosis. Therefore, targeted immunological intervention may help optimize the reproductive environment in patients who do not respond adequately to conventional hormonal therapy. However, given the limited number of studies and the potential risks associated with long-term immunosuppression, this approach should be applied selectively and with careful clinical monitoring.

Antioxidant therapy, such as combined supplementation with vitamins C and E, was shown to reduce pelvic pain and markers of oxidative stress in women with endometriosis. These findings suggest that antioxidant therapy may serve as a non-hormonal adjunct to conventional treatment, particularly for symptom relief and inflammation control (Amini et al., 2021). As a

non-hormonal intervention, antioxidant therapy may be particularly useful for patients who experience side effects or contraindications to hormonal treatments. Although antioxidants are not intended as standalone therapy, their use as an adjunct may enhance symptom control and improve overall treatment tolerance when combined with standard medical management.

Laparoscopic surgical removal of ovarian endometriomas during pregnancy should be considered a selective surgical option within the broader surgical management of endometriosis. Evidence indicates that laparoscopy can be performed safely during pregnancy in carefully selected cases, with generally favorable maternal and fetal outcomes (Tian et al., 2025). Consistent with surgical management outside pregnancy, the primary role of laparoscopy in this setting is symptom relief and management of complications rather than definitive disease control. Although minimally invasive surgery offers advantages such as reduced surgical trauma and faster recovery, the risk of postoperative recurrence remains, highlighting the need for continued monitoring (Qadrie et al., 2025). Therefore, surgical intervention during pregnancy should be reserved for clear clinical indications, integrated into a long-term management plan, and followed by close antenatal and postpartum follow-up to support optimal outcomes (Kenington et al., 2024; Wenstrom & Carr, 2014).

Traditional and complementary therapies also demonstrated potential benefits in endometriosis management. The use of SanJieZhenTong capsules following GnRH agonist therapy was associated with reduced postoperative recurrence and improved quality of life, supporting the integration of traditional medicine as an adjunctive strategy in long-term management (Zheng et al., 2023). These findings suggest that traditional therapies may contribute to symptom control and disease stabilization through mechanisms such as anti-inflammatory or immunomodulatory effects. An additional advantage of complementary therapies is their potential to reduce treatment-related side effects and improve patient adherence, particularly in long-term management where tolerance to hormonal therapy may be limited (Mentink et al., 2023). Moreover, integrative approaches that incorporate traditional medicine may enhance patient satisfaction and perceived well-being, especially among individuals who prefer holistic or culturally familiar treatment options (Kalariya et al., 2023). However, the use of traditional and complementary therapies should be guided by clinical evidence and integrated carefully with conventional treatment to ensure safety. Further well-designed studies are needed to clarify their long-term effectiveness and role within standardized endometriosis management protocols.

Theoretical Implications and Research Gaps

The findings of this review support the view that endometriosis is a complex and multifactorial condition influenced by hormonal imbalance, immune dysfunction, and chronic inflammation. The positive effects of immunological therapy, particularly TNF-α inhibitors, provide clear support for the immune dysfunction theory of endometriosis. This theory explains that increased inflammatory cytokines, such as TNF-α, help maintain endometriotic lesions and interfere with endometrial receptivity, which can lead to infertility (Smolarz et al., 2021; Symons et al., 2018). By reducing inflammation during the peri-implantation period, TNF-α inhibitors may improve implantation and pregnancy outcomes by acting on the underlying disease mechanism rather than only relieving symptoms (Liu et al., 2025).

The benefits observed with antioxidant therapy are also consistent with existing theories. Oxidative stress is known to increase inflammation and pain in women with endometriosis. The reduction of oxidative stress markers and pelvic pain after supplementation with vitamins C and E suggests that oxidative imbalance contributes to symptom severity and disease progression (Amini et al., 2021). These findings support the use of antioxidant therapy as an additional, non-hormonal option that may help improve symptom control when combined with standard treatments.

Traditional and complementary therapies further support an integrative approach to endometriosis management. The use of SanJieZhenTong capsules after GnRH agonist therapy was associated with lower recurrence rates and better quality of life, suggesting possible anti-inflammatory and immune-regulating effects (Zheng et al., 2023). This supports a biopsychosocial perspective, which recognizes that effective management should address both biological processes and long-term patient well-being.

Despite these consistent findings, several important research gaps remain. Most available studies primarily focus on short-term outcomes, such as pain reduction or pregnancy rates, while the long-term effects on disease recurrence, sustained quality of life, and mental health outcomes remain insufficiently explored. This limitation is critical given that endometriosis is a chronic and recurrent condition that often requires prolonged management and follow-up (Agarwal et al., 2019; Mechsner, 2022; Molina et al., 2024) . In addition, current evidence provides limited guidance on how different therapeutic modalities should be optimally combined or sequenced to maximize long-term benefits while minimizing adverse effects. Furthermore, psychosocial outcomes, including emotional well-being, coping capacity, and

social functioning, are rarely incorporated as primary endpoints in clinical studies, despite their recognized impact on overall disease burden (Kalfas et al., 2022; Rempert et al., 2024). The lack of integrated, multidisciplinary research designs also limits understanding of how medical and supportive interventions can be aligned to address both biological and psychosocial dimensions of the disease.

Nursing Implications

These findings provide important insights for nursing practice in managing patients with endometriosis. Nurses play a key role in patient education, particularly in providing clear information regarding available treatment options, expected outcomes, and self-management strategies. In addition, nurses are responsible for monitoring and identifying potential adverse effects associated with medical, surgical, and complementary therapies to support treatment safety and adherence. Equally important is the provision of psychosocial support, as endometriosis often affects emotional well-being and social functioning, underscoring the need for empathetic care and effective interdisciplinary collaboration.

CONCLUSION

This literature review shows that endometriosis management involves several therapeutic approaches, including hormonal, immunological, surgical, and complementary treatments, which may contribute to symptom control, fertility outcomes, and recurrence prevention. Rather than relying on a single intervention, effective management requires an individualized and stepwise approach that considers symptom severity, reproductive goals, and treatment tolerance. In addition to clinical interventions, psychosocial support is an essential component of care due to the long-term impact of endometriosis on women's quality of life. For healthcare practitioners, these findings highlight the importance of shared decision-making, ongoing evaluation of treatment response, and collaboration within a multidisciplinary team. Future research should focus on evaluating the long-term effectiveness and safety of existing and emerging therapies, as well as their psychosocial impact, to support more comprehensive and sustainable endometriosis management.

LIMITATIONS

This study has several limitations, including a sample limited to a few studies, so the results may not be widely generalizable. This study focuses more on medical aspects and less on the

psychological and social impact on patients' quality of life, which is important for a more comprehensive management approach.

REFERENCES

Agarwal, S., Foster, W., & Groessl, E. (2019). Rethinking endometriosis care: applying the chronic care model via a multidisciplinary program for the care of women with endometriosis. *International Journal of Women's Health*, *11*, 405–410. https://doi.org/10.2147/ijwh.s207373

Alonso, A., Gunther, K., Maheux-Lacroix, S., & Abbott, J. (2024). Medical management of endometriosis. *Current Opinion in Obstetrics & Gynecology*, *36*, 353–361. https://doi.org/10.1097/gco.0000000000000983

Amini, L., Chekini, R., Nateghi, M. R., Haghani, H., Jamialahmadi, T., Sathyapalan, T., & Sahebkar, A. (2021). The effect of combined vitamin c and vitamin e supplementation on oxidative stress markers in women with endometriosis : A randomized, triple-blind placebo-controlled clinical trial. *Pain Research and Management*, *2021*, 1–6. https://doi.org/10.1155/2021/5529741

Becker, C. M., Johnson, N. P., As-sanie, S., Ferreira, J. C. A., & Abrao, M. S. (2024). Two-year efficacy and safety of relugolix combination therapy in women with endometriosis-associated pain : SPIRIT open-label extension study. *Human Reproduction*, *39*(3), 526–537.

Bonavina, G., & Taylor, H. (2022). Endometriosis-associated infertility: From pathophysiology to tailored treatment. *Frontiers in Endocrinology*, *13*. https://doi.org/10.3389/fendo.2022.1020827

Chiara, F., Allegra, S., Caudana, M., Mula, J., Turco, D., Liuzzi, S., Puccinelli, M. P., Mengozzi, G., & Francia, S. De. (2025). Central serous chorioretinopathy in endometriosis treatment with progestogen: A metabolic understanding. *Life*, *14*, 1–14.

Imperiale, L., Nisolle, M., Noël, J.-C., & Fastrez, M. (2023). Three types of endometriosis: pathogenesis, diagnosis and treatment. State of the art. *Journal of Clinical Medicine*, *12*(3), 994.

Kalariya, Y., Kumar, A., Ullah, A., Umair, A., Neha, F. N. U., Madhurita, F. N. U., Varagantiwar, V., Jaffari, S. M. I. A., Ahmad, A., & Aman, M. (2023). Integrative medicine approaches: Bridging the gap between conventional and renal complementary therapies. *Cureus*, *15*(9).

Kalfas, M., Chisari, C., & Windgassen, S. (2022). Psychosocial factors associated with pain and health-related quality of life in endometriosis: A systematic review. *European Journal of Pain (London, England)*, *26*, 1827–1848. https://doi.org/10.1002/ejp.2006

Kenington, J. C., Pellino, G., Iqbal, M. R., Ahmed, N., Halahakoon, V. C., Zaborowski, A. M., Rajebhosale, R., Gabriel, J., Coroyannakis, C., & Cauldwell, M. (2024). Guidelines on general surgical emergencies in pregnancy. *British Journal of Surgery*, *111*(3), znae051.

Laganà, A. S., Garzon, S., Götte, M., Viganò, P., Franchi, M., Ghezzi, F., & Martin, D. C. (2019). The pathogenesis of endometriosis: molecular and cell biology insights. *International Journal of Molecular Sciences*, *20*(22), 5615.

Liu, M., Li, Y., Yuan, Y., Jiang, M., Yin, P., & Yang, D. (2025). Peri-implantation treatment with TNF- α inhibitor for endometriosis and / or adenomyosis women undergoing frozen-thawed embryo transfer: A retrospective cohort study. *Journal of Reproductive Immunology*, *167*(November 2024), 104415. https://doi.org/10.1016/j.jri.2024.104415

Mariadas, H., Chen, J.-H., & Chen, K.-H. (2025). The molecular and cellular mechanisms of

endometriosis: From basic pathophysiology to clinical implications. *International Journal of Molecular Sciences*, *26*. https://doi.org/10.3390/ijms26062458

Mechsner, S. (2022). Endometriosis, an ongoing pain—step-by-step treatment. *Journal of Clinical Medicine*, *11*. https://doi.org/10.3390/jcm11020467

Mentink, M., Verbeek, D., Noordman, J., Timmer-Bonte, A., von Rosenstiel, I., & van Dulmen, S. (2023). The effects of complementary therapies on patient-reported outcomes: an overview of recent systematic reviews in oncology. *Cancers*, *15*(18), 4513.

Moïse, A., Dzeitova, M., De Landsheere, L., Nisolle, M., & Brichant, G. (2025). Endometriosis and infertility: Gynecological examination practical guide. *Journal of Clinical Medicine*, *14*. https://doi.org/10.3390/jcm14061904

Molina, A., Carter, A., Alexander, L., Davé, A., & Riley, K. (2024). Holistic approach to care for patients with endometriosis. *Current Opinion in Obstetrics and Gynecology*, *36*, 266–272. https://doi.org/10.1097/gco.0000000000000970

Moradi, Y., Shams-Beyranvand, M., Khateri, S., Gharahjeh, S., Tehrani, S., Varse, F., Tiyuri, A., & Najmi, Z. (2021). A systematic review on the prevalence of endometriosis in women. *The Indian Journal of Medical Research*, *154*, 446–454. https://doi.org/10.4103/ijmr.ijmr_817_18

Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., Arora, M., Azzopardi, P., Baldwin, W., & Bonell, C. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*, *387*(10036), 2423–2478.

Qadrie, Z., Maqbool, M., Dar, M. A., & Qadir, A. (2025). Navigating challenges and maximizing potential: Handling complications and constraints in minimally invasive surgery. *Open Health*, *6*(1), 20250059.

Rempert, A., Rempert, T., Liu, A., Hernández, A., Blanck, J., Segars, J., & Singh, B. (2024). A systematic review of the psychosocial impact of endometriosis before and after treatment. *Reproductive Sciences*, *31*, 1828–1860. https://doi.org/10.1007/s43032-024-01515-w

Retis-Resendiz, A. M., Gómez-Suárez, S. K., García-Gómez, E., & Vázquez-Martínez, E. (2025). Molecular basis of impaired decidualization in the eutopic endometrium of endometriosis patients. *Cells*, *14*. https://doi.org/10.3390/cells14050326

Smolarz, B., Szyłło, K., & Romanowicz, H. (2021). Endometriosis: epidemiology, classification, pathogenesis, treatment and genetics (review of literature). *International Journal of Molecular Sciences*, *22*. https://doi.org/10.3390/ijms221910554

Symons, L., Miller, J., Kay, V., Marks, R., Liblik, K., Koti, M., & Tayade, C. (2018). The Immunopathophysiology of endometriosis. *Trends in Molecular Medicine*, *24 9*, 748–762. https://doi.org/10.1016/j.molmed.2018.07.004

Szukiewicz, D., Stangret, A., Ruiz-Ruiz, C., Olivares, E., Soriţău, O., Suşman, S., & Szewczyk, G. (2021). Estrogen - and progesterone (P4)-Mediated epigenetic modifications of endometrial stromal cells (EnSCs) and/or mesenchymal stem/stromal cells (MSCs) in the etiopathogenesis of endometriosis. *Stem Cell Reviews and Reports*, *17*, 1174–1193. https://doi.org/10.1007/s12015-020-10115-5

Tan, Y., Flynn, W., Sivajothi, S., Luo, D., Bozal, S., Davé, M., Luciano, A., Robson, P., Luciano, D., & Courtois, E. (2022). Single-cell analysis of endometriosis reveals a coordinated transcriptional programme driving immunotolerance and angiogenesis across eutopic and ectopic tissues. *Nature Cell Biology*, *24*, 1306–1318. https://doi.org/10.1038/s41556-022-00961-5

Tian, Z., Du, Z., Fu, L., Wang, X., & Sun, Z. (2025). The clinical characteristics and prognosis of surgically treated ovarian endometrioma in pregnant women. *Archives of Gynecology and Obstetrics*, *311*(4), 973–981. https://doi.org/10.1007/s00404-024-07927-y

Wenstrom, K. D., & Carr, S. R. (2014). Fetal surgery: Principles, indications, and evidence.

Obstetrics & Gynecology, *124*(4), 817–835. https://doi.org/10.1097/AOG.0000000000000476

Zheng, Y., Guo, R., Tian, Q., Du, Y., Wang, L., & Zhu, Z. (2023). The efficacy of GnRH-a followed by SanJieZhenTong capsules in long-term management of endometriosis : Study protocol for a multicenter , double-blinded , double-dummy randomized clinical trial. *Contemporary Clinical Trials Communications*, *34*(June), 101179. https://doi.org/10.1016/j.conctc.2023.101179