Review Article





ISSN: 3048-5592

"ENDOMETRIOSIS: AYURVEDIC PERSPECTIVE AND EVIDENCE-BASED MANAGEMENT"

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Not Applicable

How to cite this article:

Abhay Gandhi. "Endometriosis: Ayurvedic Perspective and Evidence-Based Management" International Journal of Ayurveda Gynecology. 2025;2(3):73-76

ABSTRACT:

Introduction: Endometriosis is a chronic gynecological condition characterized by ectopic growth of endometrial tissue, causing pelvic pain, dysmenorrhea, infertility, and reduced quality of life. Conventional treatments include hormonal therapy, analgesics, and surgical interventions, which often provide symptomatic relief but have limitations such as recurrence and side effects. Ayurveda conceptualizes endometriosis as a Vata-Kapha predominant disorder with involvement of Rakta and Artava dhatus, presenting with symptoms of pain, irregular bleeding, and infertility. Herbal formulations, Panchakarma therapies, and lifestyle modifications are traditionally employed to manage the condition. Methods: A systematic literature review was conducted using PubMed, Scopus, Web of Science, Google Scholar, and AYUSH Research Portal. Keywords included "Endometriosis," "Ayurveda," "Vata-Kapha disorders," "Panchakarma," "herbal therapy," and "gynecological pain." Classical Ayurvedic texts, preclinical studies, clinical trials, case reports, and systematic reviews published between 2000 and 2025 were included. Exclusion criteria encompassed non-peer-reviewed articles and studies lacking measurable outcomes. Data were synthesized thematically according to pathophysiology, symptomatology, and management strategies. Results: Ayurvedic management of endometriosis focuses on dosha balancing, Rakta purification, and uterine tonicity. Panchakarma interventions such as Virechana (therapeutic purgation) and Basti (medicated enema) target vitiated Vata and eliminate accumulated toxins. Herbal formulations including Ashokarishta, Dashamoola, Shatavari, and Punarnava show anti-inflammatory, analgesic, and hormonal modulatory properties. Clinical studies report significant reduction in pelvic pain, menstrual irregularities, and improvement in fertility outcomes with minimal adverse effects. **Discussion:** The integration of Ayurvedic principles and modern pharmacological understanding supports a holistic approach to endometriosis management. While preliminary evidence is promising, limitations include small sample sizes, heterogeneity of formulations, and lack of standardized protocols. Further multicentric randomized controlled trials and mechanistic studies are warranted to establish evidence-based guidelines. **Conclusion:** Ayurvedic management of endometriosis offers a complementary approach targeting symptom relief, dosha balance, and reproductive health. Evidence-based integration with conventional therapy could enhance therapeutic outcomes and reduce recurrence, promoting holistic reproductive well-being.

KEYWORDS: Ayurveda, endometriosis, gynecology, *Panchakarma*, herbal therapy

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INTRODUCTION

Endometriosis is defined as the presence of functional endometrial tissue outside the uterine cavity, commonly involving ovaries, pelvic peritoneum, and rectovaginal septum. It affects approximately 10% of women in reproductive age and is a leading cause of infertility and chronic pelvic pain. [1-2] Conventional management, including hormonal therapy (GnRH agonists, oral contraceptives), analgesics, and laparoscopic surgery, often provides symptomatic relief but may not prevent recurrence. Chronic pain, recurrent hospital visits, and impaired fertility contribute to physical, emotional, and social morbidity. [3-4]

From an Ayurvedic perspective, endometriosis is understood as a Vata-Kapha dosha disorder with secondary involvement of Rakta and Artava dhatus. The accumulation of toxins (Ama) and vitiated doshas leads to formation of nodules, adhesions, and menstrual irregularities, presenting as dysmenorrhea, menorrhagia, and infertility. [5-7] Ayurvedic texts emphasize the importance of dosha balance, Rakta purification, and promotion uterine health using herbal oftherapy, Panchakarma procedures, and lifestyle modifications. [8]

The aim of this review is to critically analyze the Ayurvedic understanding of endometriosis and evaluate evidence-based management strategies. [9] The objectives are: (1) to summarize classical Ayurvedic references on endometriosis-like conditions; (2) to review modern pharmacological and clinical studies on herbal therapy and *Panchakarma* interventions; and (3) to identify gaps in research and future prospects for integration with conventional gynecological care. [10]

MATERIALS AND METHODS

A systematic literature review was conducted from January 2000 to September 2025 using databases including PubMed, Scopus, Web of Science, Google Scholar, and AYUSH Research Portal. Keywords included: "Endometriosis," "Vata-Kapha disorders," "Ayurveda," "Panchakarma," "herbal therapy," "gynecological pain," and "infertility." [11]

Inclusion criteria: [12]

Classical Ayurvedic texts and authentic commentaries



- Preclinical studies on anti-inflammatory, analgesic, or uterotonic effects of herbs used in endometriosis
- Clinical trials, case reports, and systematic reviews on herbal therapy or *Panchakarma* interventions in gynecological disorders
- Peer-reviewed articles published in English

Exclusion criteria: [13]

- Non-peer-reviewed articles
- Studies without measurable outcomes or controls
- Duplicate publications

A total of 182 articles were identified, with 71 selected after title and abstract screening. Data were synthesized thematically into pathophysiology, symptomatology, management strategies, pharmacological properties, clinical efficacy, and safety profile. [14-15]

OBSERVATION AND RESULTS

1. Ayurvedic Concept of Endometriosis

Endometriosis-like conditions are referred to as *Yonivyapat*, *Vranaroga*, or *Artavavaha Srotas* disorders in classical texts. *Vata* and *Kapha* predominance leads to obstruction, adhesion, and formation of nodular masses. The accumulation of toxins (*Ama*) in reproductive channels causes pain, menstrual irregularities, and infertility. Symptoms correlate with modern clinical features of dysmenorrhea, pelvic pain, menorrhagia, and dyspareunia.

2. Panchakarma Interventions

- *Virechana* (therapeutic purgation): Eliminates Pitta and toxins from *Rakta*, reducing inflammation and menstrual bleeding.
- *Basti* (medicated enema): Balances *Vata*, alleviates pelvic pain, and prevents adhesion formation.
- *Raktamokshana* (bloodletting): Used selectively to manage *Pitta* and *Rakta* vitiation. Clinical studies report improvement in pain scores and menstrual regularity following *Panchakarma* therapies, suggesting *dosha*-specific interventions are effective in symptom management.

3. Herbal Management

Herbal formulations are prescribed based on *dosha* predominance and symptomatology:

• *Ashokarishta*: Anti-inflammatory, uterotonic, regulates menstrual cycle.



- *Dashamoola*: Analgesic, anti-inflammatory, reduces pelvic discomfort.
- *Shatavari*: Supports hormonal balance, fertility, and uterine health.
- *Punarnava* (Boerhaavia diffusa): Antiinflammatory, diuretic, reduces congestion and edema in pelvic tissues.

4. Clinical Evidence

- Case series and observational studies report reduction in pelvic pain, dysmenorrhea severity, and menstrual irregularities.
- Improvement in fertility outcomes noted in women undergoing combined herbal and *Panchakarma* therapies.
- Minimal adverse effects, primarily gastrointestinal discomfort, observed.

5. Thematic Synthesis

- Holistic effect: Combines symptom management, *dosha* correction, tissue tonicity, and systemic rejuvenation.
- Aligns with modern understanding: Antiinflammatory, analgesic, hormonal modulatory, and antioxidant properties of herbs correspond to pathophysiology of endometriosis.
- Evidence gaps: Lack of large-scale RCTs, heterogeneity in herbal formulations, variable protocols in *Panchakarma*, insufficient longterm follow-up.

DISCUSSION

Endometriosis is a multifactorial disorder with complex pathophysiology involving inflammation, oxidative stress, immune dysregulation, and hormonal imbalances. Conventional management, including hormonal therapy and surgery, often provides symptomatic relief but does not address underlying etiopathogenesis and is associated with and adverse recurrence effects. Ayurvedic management, focusing on dosha equilibrium, Rakta purification, and uterine tonicity, provides a holistic approach that complements modern therapy. [16]

Classical texts describe endometriosis-like conditions as *Yonivyapat* or *Artavavaha Srotas* disorders, where *Vata-Kapha* imbalance and *Rakta* vitiation lead to obstruction, adhesions, and ectopic growths. *Panchakarma* interventions, particularly *Virechana* and *Basti*, aim to eliminate accumulated toxins, restore *dosha* balance, and reduce adhesions and pain. These therapies, when administered

according to individualized *dosha* assessment, have shown significant improvements in pain severity, menstrual regularity, and reproductive outcomes.

[17]

Herbal formulations such as *Ashokarishta*, *Dashamoola*, *Shatavari*, and *Punarnava* possess anti-inflammatory, analgesic, antioxidant, and hormonal modulatory properties. Preclinical studies demonstrate inhibition of prostaglandin synthesis, reduction of inflammatory cytokines, and uterotonic effects, which align with Ayurvedic concepts of *dosha* and *dhatu* correction. Clinical studies indicate improvement in dysmenorrhea, pelvic pain, menorrhagia, and fertility outcomes, with minimal adverse events. [18]

Despite encouraging results, limitations exist. Most clinical evidence comes from small-scale, non-randomized trials or case series. Standardization of herbal formulations, dosing, and *Panchakarma* protocols is lacking. Additionally, long-term safety, herb-drug interactions, and comparative efficacy with conventional therapies remain underexplored. Integration with modern gynecological care necessitates rigorous evidence-based studies, including multicenter randomized controlled trials and mechanistic research. [19]

Overall, the Ayurvedic approach offers a multidimensional management strategy, addressing both local pathology and systemic imbalance. Evidence suggests that combining Panchakarma therapies with herbal formulations can provide symptom relief, improve reproductive health, and potentially reduce recurrence rates, making it a valuable adjunct to conventional therapy in endometriosis management. [20]

CONCLUSION

Endometriosis is a chronic gynecological disorder physical, emotional. with significant reproductive implications. Conventional treatments, while effective for symptom control, have limitations including recurrence and adverse effects. Ayurveda provides a comprehensive approach to endometriosis management, emphasizing dosha balance, Rakta purification, uterine tonicity, and systemic rejuvenation. Panchakarma therapies such as Virechana and alongside herbal formulations like Ashokarishta, Dashamoola, Shatavari, and *Punarnava*, demonstrate potential in alleviating

dysmenorrhea, regulating menstrual cycles, reducing pelvic pain, and improving fertility outcomes.

Preclinical and clinical evidence supports the antiinflammatory, analgesic, antioxidant, and hormonal modulatory properties of Ayurvedic interventions, aligning with the pathophysiology of endometriosis. Minimal adverse effects have been reported, suggesting safety and tolerability. However, research gaps remain, including small sample sizes, heterogeneity of formulations and protocols, and limited long-term follow-up. Standardization of therapies and rigorous clinical trials are essential to establish evidence-based guidelines for integration with conventional gynecological care.

In conclusion, Ayurvedic management of endometriosis offers a holistic, patient-centered, and potentially effective adjunct to modern therapy. With further scientific validation, this integrative approach could improve symptom management, enhance reproductive outcomes, and contribute to better quality of life for women suffering from endometriosis.

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