

ARTICLE INFORMATION

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Endometriosis Misdiagnosis

What is Endometriosis?

Endometriosis is a disease defined by the presence of endometrial tissue implanted in extrauterine locations.¹⁻⁴ This results in inflammation in the affected areas.^{1-4,7}

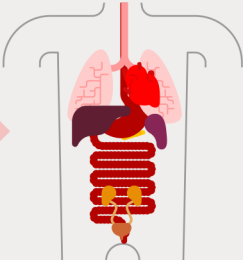



60% of cases go undiagnosed⁷



Approximately 10% of reproductive-aged females have endometriosis.^{1,3,4,5,6}
The frequent misdiagnosis of the disease have become a serious public health crisis that necessitates a reevaluation of diagnosis criteria.⁷

The pathogenesis of the disease is not well understood due to its involvement with many organ systems.^{1,4}

Up to 50%⁴ of individuals with endometriosis experience pelvic pain and infertility^{5,6,7}

- results in decreased quality of life
- e.g. increased likelihood of depression, difficulty with activities of daily living, adverse effects on sexual intimacy⁷

Despite the overwhelming evidence that endometriosis can greatly affect one's health, there remains an issue of misdiagnosis and delays in diagnosis, leaving individuals untreated for a significant portion of their life.⁷

Difficulties with Diagnosis



The misdiagnosis of endometriosis is extremely common, with delays from first symptom onset to diagnosis typically ranging from 4 to 11 years.⁷

Why do practitioners experience difficulties with diagnosing endometriosis?

- Endometriosis has no specific biomarkers¹
- Symptoms can be attributed to many other conditions¹



Symptoms of endometriosis and their association with other diseases:

- Dysmenorrhea (severe cramping in lower abdomen during or before menses)⁸ is associated with ectopic pregnancy, adenomyosis, etc.
- Dyspareunia (genital pain before, during, or after intercourse)¹⁰ is associated with vaginismus⁹



The current gold standard for diagnosis is a laparoscopy^{1,7,11} with or without histological examination - microscopic examination of tissue^{2,7,11}

A laparoscopy is the surgical examination of abdominal organs. The surgery is invasive and often inaccessible. For endometriosis diagnosis, physicians search for the visible extrauterine lesions.¹²

Laparoscopies can be unreliable:

- Poor correlation between pathology and symptom severity^{1,7,11}
- Lesions can have poor visibility⁷
- Interobserver variability⁷

Improved System of Diagnosis



Use a clinical definition over a histological definition for diagnosis.

- Endometriosis is more than its physical lesions⁷
- Better defined as a menstrual cycle-dependent, chronic, inflammatory, systemic disease that commonly presents as pelvic pain⁷
- Reduces need for diagnostic surgery⁷



Specified criteria for positive diagnosis - symptom analysis.

- Cyclic, chronic, and progressive pelvic pain⁷
- Dysmenorrhea unresponsive to nonsteroidal anti-inflammatory drugs (NSAIDs) may indicate endometriosis^{7,11}
 - NSAIDs can treat primary dysmenorrhea (pain unrelated to a pelvic disease) but not secondary dysmenorrhea (pain related to a pelvic disease)⁷



Physical examination.^{7,11}

- Bimanual pelvic examination has a diagnostic accuracy of 86%-99%⁷
- Criteria for a positive result include:
 - Palpable nodularity
 - Thickened pelvic anatomy⁷
- Less accurate for diagnosing deep endometriosis⁷
- Accuracy improves if examination is performed during menses⁷



Imaging.

- Transvaginal ultrasound can be a useful tool for diagnosis (when combined with previous techniques)
 - Particularly for deep endometriosis⁷
- Inexpensive and easy to perform¹¹



Accuracy of diagnosis will be maximized if all four methods of improvement are used in conjunction with each other!⁷

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