



Imaging Findings in Symptomatic Appendiceal Endometriosis: A Systematic Review of Case Reports

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Abstract

Context: Imaging is crucial in evaluating women with suspected appendiceal endometriosis (AE), as the condition often mimics acute or chronic appendicitis and presents a diagnostic challenge. While modalities like ultrasound (US), computed tomography (CT), and magnetic resonance imaging (MRI) can help identify abnormalities, their findings are frequently nonspecific. Therefore, awareness of imaging features is essential for accurate diagnosis and management, though definitive confirmation still relies on histopathological examination after surgical excision.

Objectives: The present study aimed to review and investigate imaging findings in symptomatic AE.

Methods: This systematic review was performed according to the preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines. PubMed, Scopus, Web of Science, CINAHL Plus, and the Cochrane Library were searched using keywords including appendix, endometriosis, MRI, transvaginal sonography (TVS), and transrectal high intensity focused US. Studies were included if they reported imaging findings in symptomatic AE. Exclusion criteria were randomized controlled trials, controlled case studies, review articles, cohort studies, systematic reviews, conference abstracts, articles without full text, and non-English language articles. Study selection and data extraction were performed independently by two reviewers. The quality of included case reports was independently assessed using the Joanna Briggs Institute (JBI) critical appraisal checklist for case reports.

Results: Twenty-six out of the total number of patients who underwent CT (30) had positive findings (86.6%), while 7 out of the total number of patients who underwent MRI (11) and 11 out of the total number of patients who underwent sonography (13) also had positive findings (63.6% and 84.6%, respectively). The mean age of the patients was 37.2 ± 7.0 years. Out of the total sample, 8 patients were pregnant. The overall imaging findings were: Normal (6 cases, 15%), wall thickening (9 cases, 22.5%), mass (15 cases, 37.5%), cystic mass (1 case, 2.5%), solid lesion in the left ovary (1 case, 2.5%), mucocele (3 cases, 7.5%), intussusception (4 cases, 10%), obstruction (5 cases, 12.5%), suspected obstruction (1 case, 2.5%), appendicitis (4 cases, 10%), fluid (11 cases, 27.5%), and abscess (3 cases, 7.5%).

Conclusion: Right lower quadrant (RLQ) mass and bowel wall thickening are the most commonly reported findings in patients with AE. Further studies are required to retrospectively evaluate the imaging findings of the appendix in pathologically confirmed AE after pelvic surgery.

Keywords: Appendiceal Endometriosis, Bowel Endometriosis, Deep Endometriosis, Transvaginal Sonography, Computed Tomography, Magnetic Resonance Imaging, MR Enterography

1. Context

Endometriosis is a chronic inflammatory condition characterized by the growth of endometrium-like epithelium and/or stroma outside the uterus. It affects approximately 2 - 10% of women in the general

population and could be seen in up to 50% of women with fertility problems (1). The most common symptoms of endometriosis include dysmenorrhea, dyspareunia, menorrhagia, and infertility (2). Deep infiltrating endometriosis (DIE) is endometrium-like tissue lesions in the abdomen, extending on or under the peritoneal

surface, usually in nodular form, with the ability to invade adjacent structures, and in association with fibrosis and disruption of normal anatomy (3). This is the most severe type of endometriosis, which can involve the intestines and urinary tract, leading to severe symptoms in patients.

Appendiceal endometriosis (AE) is a rare site of DIE. In the literature, AE prevalence is highly variable (from 0.2% to 39%) based on the study population. Among patients undergoing appendectomy for suspected acute appendicitis, the prevalence of AE has been reported as 2.67%. The type and severity of endometriosis may influence AE prevalence; rates of 11.6% in women with superficial endometriosis and 39.0% in those with DIE have been reported (4, 5). The symptoms of AE can mimic those of acute or chronic appendicitis. Preoperative imaging diagnosis is challenging, and AE is often diagnosed after appendectomy on histopathological examination. Bowel obstruction, bowel intussusception, bowel habit disturbance, cyclic acute abdominal symptoms, and positive occult blood test/colonoscopy are other reported symptoms of AE. Timely, accurate imaging assessment is essential as endometriosis has a heterogeneous presentation and a substantial impact on quality of life (6-11).

Noninvasive imaging methods such as transvaginal sonography (TVS) and magnetic resonance imaging (MRI) can help determine the exact location and spread of endometriosis. In addition, magnetic resonance enterography (MRE) can assist particularly in the detection of bowel DIE and surgical planning in cases with multiple lesions. Laparoscopic surgery is the preferred approach for surgical planning and treatment of endometriosis, and appendectomy may be performed when appendiceal involvement is suspected (5, 12-20). Accurate preoperative imaging assessment of symptomatic AE is essential for selecting the most appropriate treatment through precise disease mapping. In this review, we focus on the imaging findings of AE in symptomatic patients to highlight the utility of imaging modalities in timely and accurate preoperative diagnosis.

2. Objectives

The present systematic review aimed to review and collect the imaging abnormalities associated with symptomatic AE confirmed by histopathology, and to

describe detection patterns by modality to aid in preoperative planning.

3. Methods

3.1. Study Design

This systematic review adhered to the preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines. Given the rarity of symptomatic AE, we included case reports to capture detailed imaging findings. Additionally, we aimed to include case series and observational studies to enhance data richness, though no suitable comparative studies were identified during screening.

3.2. Search Strategy

We conducted a comprehensive literature search across five databases: PubMed, Scopus, Web of Science, CINAHL Plus, and the Cochrane Library. The search included combinations of the following terms: "appendix", "endometriosis", "magnetic resonance imaging", "transvaginal sonography", and "transrectal high-intensity focused ultrasound". Boolean operators were used to refine search queries. Filters were applied to include only English-language articles with full text available, published up to 2024. The proposed search strategy is as follows: PubMed (Title/Abstract): ("appendix" AND "endometriosis") AND (MRI OR "magnetic resonance imaging") OR ("transvaginal sonography") OR ("transrectal high-intensity focused ultrasound").

3.3. Eligibility Criteria

We included studies that reported imaging findings in symptomatic patients diagnosed with AE and provided histopathological confirmation of diagnosis. We excluded randomized controlled trials, review articles, cohort studies, and systematic reviews, conference abstracts, non-English articles, and studies without full-text availability.

3.4. Study Selection and Data Extraction

Two reviewers independently screened titles/abstracts using Covidence software. Discrepancies were resolved through discussion. Full-text articles of potentially relevant studies were reviewed to determine

eligibility. Out of 494 initial records, 128 duplicates were removed. After title and abstract screening, 323 records were excluded. Following full-text review, 39 studies (comprising 40 cases) were included. Data extracted included study characteristics, patient demographics, imaging modalities used, imaging findings, and treatment outcomes. Extracted data were managed using Excel.

3.5. Risk of Bias and Quality Assessment

The quality of included case reports was assessed using the Joanna Briggs Institute (JBI) critical appraisal checklist for case reports. Each case was evaluated for completeness in patient history, diagnostic methods, and outcome reporting. Risk of bias was considered based on clarity of imaging interpretation, potential confounding conditions, and consistency with histopathological findings.

3.6. Data Analysis

Given the nature of case reports, data were analyzed descriptively. Frequencies and percentages were calculated for imaging modalities and findings. No statistical tests were conducted due to the absence of comparative or quantitative data.

3.7. Protocol Registration

This review was registered with PROSPERO (Registration No.: CRD42022335388) and approved by the ethics committee ([IR.TUMS.IKHC.REC.1401.094](#)). These steps ensure transparency, credibility, and adherence to ethical standards in the research process, aligning with best practices in systematic reviews and academic research as highlighted in the provided sources.

4. Results

From 39 studies, we identified 40 cases of symptomatic AE with reported imaging findings. The mean patient age was 37.2 years ($SD \pm 7.07$). Of the 40 patients, 8 (20%) were pregnant. An overview of the included studies and patient characteristics is summarized in [Table 1](#).

4.1. Clinical Presentation

The most frequent symptom was abdominal pain, particularly in the RLQ, reported in 77.5% of cases. Other common symptoms included vomiting (42.5%), nausea (30%), abdominal tenderness (55%), and bowel obstruction (20%). Less frequent symptoms included bowel habit disturbance (10%), dysmenorrhea (15%), and fever (5%). The clinical symptoms observed among patients are detailed in [Table 2](#).

Table 2. Summary of Main Clinical Symptoms

Clinical symptoms	No. (%)
Bowel obstruction	8 (20)
Bowel intussusception	2 (5)
Bowel habit disturbance	4 (10)
Cyclic symptoms	1 (2.5)
Abdominal pain	31 (77.5)
Pelvic pain	1 (2.5)
Abdominal tenderness	22 (55)
Abdominal distension	10 (25)
Guarding	7 (17.5)
Fluid accumulation	5 (12.5)
Diarrhea	6 (15)
Constipation	3 (7.5)
Nausea	12 (30)
Vomiting	17 (42.5)
Anorexia	4 (10)
Fever	2 (5)
Leukocytosis	11 (27.5)
Dysmenorrhea	6 (15)
Irregular bleeding	4 (10)

4.2. Imaging Modalities

1. Computed tomography (n = 30): Positive findings were seen in 26 patients (86.6%). Common findings included RLQ mass, appendiceal wall thickening, and ascites or free fluid.

2. Magnetic resonance imaging (n = 11): Positive findings were seen in 7 patients (63.6%). Key features included RLQ mass with signal heterogeneity, wall thickening, and nodular lesions with T2 hypointensity.

3. Ultrasound (n = 13): Positive findings were seen in 11 patients (84.6%), identifying features like wall thickening, mass, and signs of intussusception.

Of the 40 patients included in this review, 14 underwent more than one imaging modality, which enabled cross-modality comparison of findings in a subset of cases.

4.3. Comparative Imaging Trends

Among imaging findings:

- Right lower quadrant mass was most commonly detected by MRI (54.54%) and CT (33.33%).
- Appendiceal wall thickening was seen across all modalities but most frequently in CT (26.67%).
- Magnetic resonance imaging identified unique soft tissue characteristics, useful for differentiating endometriosis from other pathologies.
- Sonography remained useful in initial assessment, especially in pregnant patients.

A comparative analysis of imaging findings across modalities is shown in [Table 3](#).

Table 3. Detailed Comparison of Imaging Findings by Sonography, Computed Tomography, and Magnetic Resonance Imaging^a

Imaging findings	Sonography (n = 13)	CT (n = 30)	MRI (n = 11)
Wall thickening	3 (23.07)	8 (26.67)	1 (9.09)
Mass	2 (15.38)	10 (33.33)	6 (54.54)
Cystic mass	0 (0.00)	0 (0.00)	0 (0.00)
Solid lesion in the left ovary	0 (0.00)	1 (3.33)	0 (0.00)
Mucocle	1 (7.69)	2 (6.66)	1 (9.09)
Intussusception	2 (15.38)	3 (10.00)	2 (18.18)
Obstruction	0 (0.00)	4 (13.33)	1 (9.09)
Suspected bowel obstruction	0 (0.00)	1 (3.33)	0 (0.00)
Appendicitis	1 (7.69)	2 (6.66)	0 (0.00)
Fluid	2 (15.38)	7 (23.33)	0 (0.00)
Abscess	0 (0.00)	2 (6.66)	1 (9.09)

Abbreviations: CT, computed tomography; MRI, magnetic resonance imaging.

^a Values are expressed as No. (%).

4.4. Interpretation

Across imaging techniques, RLQ mass and wall thickening emerged as the most consistent findings suggestive of AE. The MRI, due to its soft tissue resolution, added value in identifying concurrent pelvic endometriosis lesions. These trends support MRI as the modality of choice in complex or inconclusive cases, while CT remains the workhorse in acute settings. Sonography complements both but is limited in specificity. This synthesis improves our understanding of imaging findings in a rare condition and provides guidance for diagnosis and surgical planning.

5. Discussion

Despite advances in medical and surgical treatment, women with DIE experience significant impairment in quality of life ([60](#)). Endometriosis of the appendix presenting with acute appendicitis is rare and accounts

for less than 1% of all appendiceal pathologies that can resemble the clinical picture of acute appendicitis ([61](#)). Patients with cyclic bowel symptoms, chronic RLQ pain, and severe endometriosis are at a higher risk for developing AE. However, in our study, only 55% of patients were known cases of endometriosis who presented with abdominal tenderness ([62](#)).

Despite none of the patients having definitive imaging findings of endometriosis before surgery, retrospective evaluation of MRI in patients suggested findings in favor of AE, including: Concomitant hypo-intense T1 and T2 nodularity along the terminal ileum serosal surface, hypo-intense T1 and T2 mass in the cecal base and appendix orifice, and skipped DIE lesions in the rectum and rectosigmoid. In 2023, Medeiros *et al.* conducted a systematic review on the accuracy of MRI for DIE and reported that MRI has a high sensitivity and specificity for the detection of intestinal endometriosis [pooled sensitivity of 0.84 (95% CI 0.78 - 0.88) and specificity of 0.97 (95% CI 0.94 - 0.98)] ([63](#)). These findings suggest that careful evaluation of pelvic MRI in women of reproductive age with RLQ symptoms could help suggest the preoperative imaging findings of AE and provide patients with benefits from non-surgical treatments. It should be noted that in some conditions, differentiation of AE in nodular form is impossible from a carcinoid tumor, and definitive diagnosis often relies on surgical and histopathological findings.

In 2020, Aas-Eng *et al.* in Norway reviewed the literature on endometriosis imaging, focusing on TVS and MRI for DIE and adenomyosis. The study suggested that TVS and MRI are reliable methods for diagnosing endometriosis, adenomyosis, and especially DIE. The information obtained from these imaging methods can assist physicians in planning surgery and estimating its risks. Therefore, the use of TVS and MRI should be the first step in the imaging findings and treatment of endometriosis patients ([16](#)).

In 2020, Indrielle-Kelly *et al.* conducted a prospective observational study to investigate the accuracy of TVS and MRI in identifying pelvic DIE. The study included 49 out of 111 patients who underwent imaging with these two methods to plan surgical treatment. Both methods had similar sensitivity and specificity in identifying lesions of the upper rectum and rectosigmoid. The TVS had lower sensitivity and more specificity than MRI in evaluating the bladder, uterosacral ligament, vagina,

rectovaginal septum, and pelvis in general. MRI was significantly superior to TVS in identifying lesions in the uterosacral ligament. The study concluded that the use of both methods is useful in identifying pelvic DIE (62).

Bazot *et al.* conducted a study in 2020 to review the use of MRI in diagnosing DIE involving the small intestine, including its protocols, indications, technical requirements, patient preparation, and criteria. According to the study, MRI should be used as the second-line tool after TVS for evaluating endometriosis in the rectosigmoid colon. It is also recommended to use MRI before surgery to determine the stage of the disease. In addition, MR-enterography should be performed to check for ileocecal and appendicular lesions (63).

The RLQ mass and appendiceal wall thickening were the most common imaging findings in our review. In addition, RLQ mass was the most frequent MRI finding. Although the exact prevalence and accuracy of imaging findings in AE are not defined in the literature, the reported imaging findings include: An enlarged appendix involved by hypodense soft tissue masses, luminal dilation or focal nodules within the appendiceal body in CT, and discrete serosal hyperintense foci on pre-contrast fat-saturated T1 images to nodular lesions that appear hypointense on T2 images, occupying the tip or body of the appendix, luminal obstruction resembling an appendiceal mucocele on MRI (64).

The imaging findings of AE causing acute appendicitis can be challenging, as it is often mistaken for other diseases. In cases of acute appendicitis, the exact cause is not always clear but is often attributed to infection or obstruction. Although endometriosis is a relatively common disease in women of reproductive age, isolated involvement of the appendix is rare. The results of our study suggest that CT and MRI are the preferred modalities for detecting RLQ pathologies in patients with underlying endometriosis, particularly MRI because of the higher soft tissue resolution and ability to detect concomitant endometriotic lesions in both pelvic and extrapelvic locations (65). The RLQ mass, bowel intussusception, mucocele, and bowel wall thickening were the most prevalent reported findings in MRI (66). The bowel wall thickening, obstruction, appendicitis, and free fluid were the most prevalent reported findings in CT.

A major limitation of our review is the absence of eligible observational studies or case series, primarily due to the rarity of symptomatic AE, which reduces the generalizability and strength of the synthesized findings. Our systematic search did not identify any analytical studies containing sufficient cases for inclusion. Even hypothetically, if such studies existed, their descriptive findings would likely focus broadly on clinical outcomes rather than detailed imaging-specific data, potentially introducing heterogeneity and interpretational bias.

In conclusion, RLQ mass and bowel wall thickening are the most commonly reported findings in patients with AE. The MRI appears to be a useful modality in patients suspected of appendicitis and has the added benefit of detecting other foci of pelvic or abdominal endometriosis. We recommend the use of MRI in clinical settings where endometriosis complications are suspected. Further studies are required to retrospectively evaluate the imaging findings of the appendix in pathologically confirmed AE, particularly in patients undergoing pelvic surgery.

Footnotes

Authors' Contribution: F. S. K. conceived and designed the assessments and drafted the manuscript. S. T. participated in designing the assessments and contributed to the statistical analysis and drafting of the manuscript. A. A. and R. Y. re-evaluated the clinical data, revised the manuscript, performed statistical analysis, and revised the manuscript. P. R. F., F. A., L. B., and H. Q. collected and interpreted the clinical data. J. Z. and F. S. K. re-analyzed the clinical and statistical data and revised the manuscript. All authors read and approved the final manuscript.

Conflict of Interests Statement: The authors declare no conflict of interests.

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Table 1. Characteristics of Included Case Reports of Appendiceal Endometriosis ^a

No	Article title	Country	First author	Patient age	Clinical characteristics	Reasons for inclusion in this review (case features)	Pregnancy status
1	A Case of Endometriosis of the Appendix with Adhesion to Right Ovarian Cyst Presenting as Intussusception of a Mucocele of the Appendix	Japan	Akagi (21)	35	Intussusception, ovarian cyst adhesion	Symptomatic AE, intussusception	No
2	A Rare Case of Lower Quadrant Pain	Portugal	Eduardo (22)	40	RLQ pain	Symptomatic AE, RLQ pain	No
3	Acute Appendicitis Secondary to Appendiceal Endometriosis	Brazil	Drumond (23)	32	Acute appendicitis	Symptomatic AE, acute appendicitis	No
4	Acute Small Bowel Obstruction Secondary to Intestinal Endometriosis, an Elusive Condition: A Case Report	United Kingdom	Slesser (24)	33	Small bowel obstruction	Symptomatic AE, small bowel obstruction	No
5	Appendiceal Endometriosis	Saudi Arabia	A. Al-Talib (25)	31	Endometriosis of the appendix	Symptomatic AE, abdominal pain	No
6	Appendiceal Endometriosis in a Pregnant Woman Presenting with Acute Perforated Appendicitis	United States	Lebastchi (26)	33	Acute perforated appendicitis	Symptomatic AE, acute perforated appendicitis	Yes
7	Appendiceal Endometriosis Invading the Sigmoid Colon: A Rare Entity	France	Lainas (27)	41	Endometriosis invading sigmoid colon	Symptomatic AE, sigmoid colon involvement	No
8	Appendiceal Intussusception from Endometriosis	Philippines	Lopez (28)	39	Intussusception due to endometriosis	Symptomatic AE, intussusception	No
9	Appendiceal Intussusception Resulting from Endometriosis Presenting as Acute Appendicitis	Spain	Marin (29)	29	Acute appendicitis due to intussusception	Symptomatic AE, acute appendicitis	No
10	Appendiceal Intussusception Secondary to Endometriosis: A Rare Etiology of Right Lower Quadrant Abdominal Pain	Belgium	Trefois (30)	30	RLQ pain	Symptomatic AE, RLQ pain	No
11	Appendicitis Caused by Endometriosis Within the Bowel Wall	United States	Gupta (31)	36	Appendicitis due to bowel wall endometriosis	Symptomatic AE, appendicitis	No
12	Appendicitis with Submucosal Fecalith Mimicking a Submucosal Tumor: A Case Report	Japan	Bekki (32)	40	Submucosal fecalith	Symptomatic AE, appendicitis	No
13	Appendicular Endometriosis as a Cause of Chronic Abdominal Pain Alone in the Right Iliac Fossa: Case Report and Literature Review	Brazil	Basso (33)	44	Chronic abdominal pain	Symptomatic AE, chronic abdominal pain	No
14	Appendicular Endometriosis: A Case Report and Review of Literature	India	Gupta (34)	35	Endometriosis of the appendix	Symptomatic AE, abdominal pain	No
15	Cecal Endometriosis Presenting as Acute Appendicitis	Iran	Alizadeh Otaghvar (35)	43	Acute appendicitis	Symptomatic AE, acute appendicitis	No
16	Characteristic Findings of Appendicular Endometriosis Treated with Single Incision Laparoscopic Ileocectomy: Case Report	Japan	Hakoda (36)	51	Laparoscopic treatment of appendicular endometriosis	Symptomatic AE, laparoscopic findings	No
17	Colonic Endometriosis Presenting as a Sigmoid Stricture Requiring Laparoscopic Colonic Surgery for Diagnosis and Treatment	United States	Nojkov (37)	29	Sigmoid stricture due to endometriosis	Symptomatic AE, sigmoid stricture	No
18	Continuous Amenorrhea May Be Insufficient to Stop the Progression of Colorectal Endometriosis	France	Milochau (38)	26	Amenorrhea related to endometriosis	Symptomatic AE, amenorrhea	No
19	Deciduosis of the Appendix During Pregnancy	Japan	Tsunemitsu (39)	35	Deciduosis during pregnancy	Symptomatic AE, pregnancy-related symptoms	Yes
20	Endometriosis Causing Acute Appendicitis Complicated with Hemoperitoneum	Spain	Curbelo (40)	39	Acute appendicitis with hemoperitoneum	Symptomatic AE, acute appendicitis	No
21	Endometriosis of the Appendix Causing Small Bowel Obstruction in a Virgin Abdomen	Australia	Choi (41)	29	Small bowel obstruction	Symptomatic AE, bowel obstruction	No
22	Endometriosis of the Appendix: A Trap for the Unwary	Saudi Arabia	Khairy (42)	33	Endometriosis of the appendix	Symptomatic AE, abdominal pain	No
23	Endometriosis of the Duplex Appendix: A Case Report and Review of the Literature	China	Zhu (43)	44	Duplex appendix with endometriosis	Symptomatic AE, duplex appendix	No
24	Endometriosis of the Terminal Ileum: A Diagnostic Dilemma	Turkey	Karaman (44)	27	Diagnostic challenges in terminal ileum	Symptomatic AE, ileal symptoms	No
25	Endometriosis of the Vermiform Appendix Presenting as a Tumor	Japan	Terada (45)	41	Tumor-like presentation of AE	Symptomatic AE, tumor-like symptoms	No
26	Ileal Endometriosis Presenting as Acute Small Intestinal Obstruction: A Case Report	Nigeria	Alatise (46)	34	Small intestinal obstruction	Symptomatic AE, intestinal obstruction	No
27	Incidental Appendiceal Mass as the Only Manifestation of Endometriosis	Lebanon	Yaghi (47)	34	Incidental finding of appendiceal mass	Symptomatic AE, incidental findings	No
28	Laparoscopic Partial Cecum Resection in Appendiceal Intussusception	Turkey	Zenger (48)	35	Laparoscopic treatment of intussusception	Symptomatic AE, intussusception	No
29	Leiomyomatosis Peritonealis Disseminata Associated						

No	Article title	Country	First author	Patient age	Clinical characteristics	Reasons for inclusion in this review (case features)	Pregnancy status
	with Appendiceal Endometriosis: A Case Report	South Korea	Lee (49)	31	Endometriosis with leiomyomatosis	Symptomatic AE, leiomyomatosis	No
30	Mucocele of the Appendix due to Endometriosis: A Rare Case Report	Japan	Tsuda (50)	43	Appendiceal mucocele	Symptomatic AE, mucocele	No
31	Multifocal Abdominal Endometriosis: A Case Report	United States	Porter (51)	52	Multifocal presentation of endometriosis	Symptomatic AE, multifocal symptoms	No
32	Preoperative Evaluation of an Appendiceal Mucocele in a Woman with Endometriosis	Italy	Morotti (52)	35	Preoperative assessment of mucocele	Symptomatic AE, mucocele assessment	No
33	Preoperative Hormonal Therapy for a Patient With Appendiceal Endometriosis	Japan	Shichiri (53)	40	Hormonal therapy prior to surgery	Symptomatic AE, hormonal therapy	No
34	Lower Quadrant Pain During Pregnancy	United States	How (54)	26	RLQ pain during pregnancy	Symptomatic AE, pregnancy-related pain	Yes
35	Rupture of Appendiceal Mucocele due to Endometriosis: Report of a Case	Japan	Miyakura (55)	56	Ruptured appendiceal mucocele	Symptomatic AE, ruptured mucocele	No
36	Small Bowel Obstruction Caused by Appendiceal and Ileal Endometriosis: A Case Report	Japan	Kobayashi (56)	37	Small bowel obstruction due to endometriosis	Symptomatic AE, bowel obstruction	No
37	Small Bowel Obstruction Caused by Ileal Endometriosis with Appendiceal and Lymph Node Involvement Treated with Single-Incision Laparoscopic Surgery: A Case Report and Review of the Literature	Japan	Koyama (57)	40	Small bowel obstruction with lymph node involvement	Symptomatic AE, lymph node involvement	No
38	Small Bowel Obstruction due to an Endometriotic Ileal Stricture with Associated Appendiceal Endometriosis: A Case Report and Systematic Review of the Literature	India	Sali (58)	44	Endometriotic ileal stricture	Symptomatic AE, ileal stricture	No
39	Two Cases of Endometriosis in the Cecum Detected by Contrast-Enhanced Computed Tomography with Air/Carbon Dioxide Insufflation	Japan	Iwamuro (59)	40 and 40	Endometriosis in the cecum	Symptomatic AE, cecal symptoms	No

Abbreviations: AE, appendiceal endometriosis; RLQ, right lower quadrant.

^a Because all included items are case reports, study-level inclusion criteria do not apply. This table lists review-level eligibility (symptomatic AE, histopathologic confirmation, and sufficient clinical/imaging/surgical detail). No exclusion criteria were prespecified; all case reports meeting these features were included.