

Endometriosis and Cervical Dysplasia: Current Evidence and Ongoing Systematic Review of Colposcopic, Histopathologic and Immunologic Findings

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Hypothesis

Endometriosis may produce a biologically real but non-dysplastic colposcopic phenotype, reducing specificity and positive predictive value.

INTRODUCTION

Current evidence does not demonstrate increased HPV prevalence in women with endometriosis. Inflammatory and angiogenic changes may contribute to an abnormal colposcopic phenotype without corresponding dysplasia—a plausible mechanism requiring prospective validation. [3–5,15,16]

METHODS — ONGOING SYSTEMATIC REVIEW

PRISMA 2020 / PECO; PROSPERO pending; two independent reviewers; NOS / JBI appraisal ongoing.
PubMed/MEDLINE, Embase and Scopus: 1 October 2026. **Web of Science search planned.**
HPV: 2020–2026; diagnostic / mimicry / iatrogenic searches: no date limit.
Grey-literature / multilingual search: 8 October 2026; full-text extraction ongoing. [1]

ELIGIBILITY

Clinical / translational studies, case reports / series, preprints and congress abstracts; any language. Comparator: no endometriosis, where available. Outcomes: HPV, cervical assessment and tissue markers.

STUDY SELECTION — PROVISIONAL

Reported hits: PubMed 2,526; Embase 4,439; Scopus 259; grey literature 11 (total 7,235). Registers: 124, not screened. 4,238 records screened; 32 reports sought; 18 not retrieved; 14 assessed; 2 excluded; 12 in preliminary synthesis. Dual screening ongoing.

PRELIMINARY FINDINGS

Outcome coverage in the preliminary synthesis (n = 12)

Report	Design	HPV	Cytology	Cervical histology†	Colposcopic variables	Markers paired with colposcopic impression
Saei Ghare Naz 2026 [3]	Meta-analysis	●	○	○	○	○
Li 2026 [4]	Meta-analysis + case–control	●	○	○	○	○
Hong 2023 [15]	National survey	●	○	○	○	○
Vandadi 2026 [5]	Cross-sectional preprint	●	●	●	●	○
Kvaskoff 2021 [6]	Meta-analysis	○	○	●	○	○
Matalliotakis 2026 [7]	Surgical series	○	○	●	○	○
Shyu & Rabban 2026 [2]	Pathology archive	○	○	●	○	○
Bobora 2026 [8]	Case + review	○	◐	◐	◐	○
Sakabe 2025 [9]	Case report	○	◐	◐	○	○
Madhuri 2006 [13]	Case series	○	◐	◐	◐	○
Atalay Mert 2023 [10]	Case + overview	○	◐	◐	◐	○
Verma 2025 [14]	Systematic review + case series	○	○	◐	○	○

● Comparative / cohort-level ◐ Case-level ○ Not assessed in this outcome domain †CIN or other cervical pathology.

1 Marker data reported; no analytical correlation with colposcopic impression identified. A: diagnostic archives (10); B: local immunity (2); C: cervical sampling (6; fluid studies context only). Kopelman: pilot, 10 women. [11,12,16]

2 No excess HPV detection demonstrated. Population hrHPV aPR 0.71 (0.44–1.14); cervical-cancer SRR 0.68 (0.56–0.82), possibly detection-related. HPV detection in implants does not establish cervical persistence. [3,4,6,15,17]

3 Abnormal colposcopy 69.5% vs 17.8% (aOR 10.47), with no significant biopsy difference in one HPV-positive preprint. Mimicry versus interpretation bias unresolved; specificity / PPV loss unmeasured. [5] None of the verified studies stratified outcomes by progestin exposure.

4 Cervical endometriosis may be p16-positive; staining does not establish HPV negativity or exclude coexisting CIN. Diagnostic mimicry can prompt overtreatment; post-conization endometriosis is documented. [8,11–13]

Clinical Question

What should I do with an acetowhite area and/or coarse mosaicism in a patient with known endometriosis?

Endometriosis alone justifies neither escalation nor dismissal of abnormal findings; discordant glandular histology warrants review.

TRANSLATIONAL OUTLOOK Prospective serial HPV / CIN follow-up to test persistence without progression; colposcopists blinded to endometriosis; independent double histology reading with adjudication. Stratify endometriosis site, progestin exposure and prior cervical procedures.

CONCLUSIONS

Increased HPV prevalence has not been demonstrated; persistence remains unresolved. Cervical endometriosis can mimic dysplasia. One preprint reported more abnormal colposcopy in women with endometriosis than in controls, but no significant difference in biopsy findings. Patient-level discordance, reduced specificity / PPV and the mechanism remain unconfirmed. [3–5,8,15]

LIMITATIONS Ongoing review; heterogenous population, study designs, specimens and outcomes; limited generalisability. [5]

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