

Hysteroscopic criteria for the diagnosis of chronic endometritis: a systematic review and diagnostic test accuracy meta-analysis.

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ABSTRACT

OBJECTIVE: To assess the diagnostic accuracy of current hysteroscopic criteria compared with histopathological analysis (with or without additional immunohistochemistry) for the detection of chronic endometritis.

DATA SOURCES: MEDLINE, Scopus, SciELO, Embase, ClinicalTrials.gov, Cochrane Central Register of Controlled Trials, LILACS, conference proceedings, and international controlled trials registries were searched without date limit or language restrictions.

STUDY ELIGIBILITY CRITERIA: Studies were selected if they were randomized, prospective, or retrospective and estimated the diagnostic accuracy of hysteroscopy for chronic endometritis by comparing hysteroscopic criteria with histopathological (with or without immunohistochemistry) diagnosis. Primary outcomes were the diagnostic odds ratio, area under the summary receiver operating characteristic curve, sensitivity, and specificity. Positive and negative likelihood ratios were secondary outcomes.

METHODS: Diagnostic accuracy meta-analysis was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses and Synthesizing Evidence from Diagnostic Accuracy Tests recommendations and Synthesizing Evidence from Diagnostic Accuracy Tests methodological guidelines. Quality assessment was conducted using the Quality Assessment Tool for Diagnostic Accuracy Studies 2. Publication bias was evaluated with Deeks funnel plot asymmetry test.

RESULTS: Thirteen studies compared available hysteroscopic criteria (stromal edema, diffuse or focal hyperemia, "strawberry aspect," micropolyposis) with subsequent histopathological analysis of endometrial sampling. After pooling all the studies, the diagnostic odds ratio was 40 (95% confidence interval, 12-133). The evaluated area under summary receiver operating characteristic curve was 0.93 (95% confidence interval, 0.90-0.95), correlating with very high diagnostic accuracy. Sensitivity and specificity were 84% (95% confidence interval, 0.68-0.93) and 89% (95% confidence interval, 0.75-0.95), respectively. In addition, the positive and negative likelihood ratios were 7.4 (95% confidence interval 3.2-17.0) and 0.19 (95% confidence interval, 0.09-0.39), respectively.

CONCLUSION: Hysteroscopic diagnostic criteria are highly accurate and sensitive for detecting chronic endometritis. Absence of hysteroscopic suspicion might be sufficient to exclude disease. However, in cases in which hysteroscopic diagnostic findings of chronic endometritis are present, performing endometrial biopsy is recommended to confirm the diagnosis due to risk of false positives with hysteroscopy alone.