FMT Placed by Colonoscopy: Systematic Review and Meta-Analysis

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Robustness of a Newly Proposed Risk Schema for Lymphatic Dissemination in Endometrioid Endometrial Cancer

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Background: Surgical management for endometrioid endometrial cancer (EEC) includes complete lymph node dissection for all patients at risk of lymphatic dissemination. The standard risk schema, defined by Mayo Clinic, identifies low-risk patients as those with grade 1/2 EEC, myometrial invasion (MI) ≤ 50%, and tumor diameter (TD) ≤ 2 cm. We recently proposed (and published) a risk schema containing modified forms of grade, MI and TD that suggests a significant decrease in false-negative rate and need for lymphadenectomy in low-risk women.

Purpose: Evaluate robustness of our proposed schema for lymphatic dissemination risk stratification in a subsequent EEC patient cohort.

Methods: We retrospectively applied the proposed schema to patients diagnosed with stage I–III EEC during 2014–2015 who underwent pelvic and/or para-aortic lymph node removal. Cancer Registry data were confirmed via chart review. Consistent with the cohort studied during model development, the validation cohort included non-Hispanic white or black patients with complete data describing TD (≤50 mm or >50 mm), MI (≤33%, >33% to ≤66%, or >66%) and grade (1 or 2–3).

Results: In the validation cohort, 29 (11.7%) of the 247 EEC patients were node-positive (vs 9.2% of 737 patients in the development cohort). Risk stratification using the proposed schema produced similar false-negative rates during model development (57.2%) and validation (54.6%), both 20% lower than when using the standard schema (76.2% and 74.3%, respectively). False-negative rates, however, were noticeably different between development and validation cohorts using both the proposed (0% and 13.8%) and standard (1.47% and 6.90%) schemas, suggesting a shift toward low-risk classification in node-positive patients of the validation cohort.

Conclusion: Application of the proposed risk stratification schema to an alternative patient cohort verified the utility of modified risk criteria, including TD with 50-mm cutoff, for identifying low-risk EEC patients who may not require node evaluation. However, in the validation cohort, greater prevalence of lymph node metastasis and low-risk classification of node-positive patients was observed. Discrepancy between cohorts is likely due to greater utilization of sentinel lymph node mapping during the validation period, allowing for increased detection of low-volume metastases. Continued model development and validation is needed, especially to account for the increased sensitivity of new technologies.