Cytopathology in focus: Navigating papillary lesions in Lynch syndrome

written by CAP TODAY
August 19, 2025

August 2025—Case summary. A 52-year-old chronic smoker with a known MLH1 mutation and Lynch syndrome presented with a pleural-based lung lesion. Fine-needle aspiration revealed a malignant neoplasm with papillary architecture, featuring enlarged overlapping nuclei, coarse chromatin, prominent nucleoli, and rare mitotic figures. Given the patient's clinical background and cytologic findings, a broad differential diagnosis including primary and metastatic tumors from both thoracic and ab-dominal origins was considered.

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Cytopathology in focus: Small samples, big impact: cytology specimens in the molecular era

written by CAP TODAY
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August 2025—Strides in medical imaging techniques and procurement methods have led to the acquisition of small diagnostic samples obtained by minimally invasive techniques. Over the same period, the breadth of molecular information that can be derived from limited tumor material has increased exponentially. In the age of targeted cancer therapy, the clinical utility of this information is substantial and, when coupled with the decreasing costs of molecular analysis, the information transformed the treatment landscape of cancer. These advances have brought cytology back into the spotlight as a potential source of material for biomarker analysis.

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Cytopathology in focus: What's new in '25 head and neck SCC guideline?

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August 2025—Human papillomavirus testing has become the standard of care in head and neck squamous cell carcinoma (HNSCC) because of the unique clinical features, staging, and treatment options for HPV-associated HNSCC. HPV-associated oropharyngeal squamous cell carcinoma (OPSCC) exhibits a favorable prognosis and improved response to chemoradiation compared with conventional HNSCC and non-HPV-associated forms, and reporting the HPV status is frequently part of clinical trial enrollments. Many patients with OPSCC present with enlarged level II or III cervical lymph nodes and, as a result, cervical lymph node fine-needle aspiration is often the first, and sometimes only, tissue obtained for diagnostic testing. With a growing menu of options available to test for HPV status, including polymerase chain reaction, DNA in situ hybridization, mRNA ISH, liquid-based HPV assays, and p16 immunohistochemistry, it is not always clear when and which HPV test to use, especially when the diagnosis is made on a cytology specimen.

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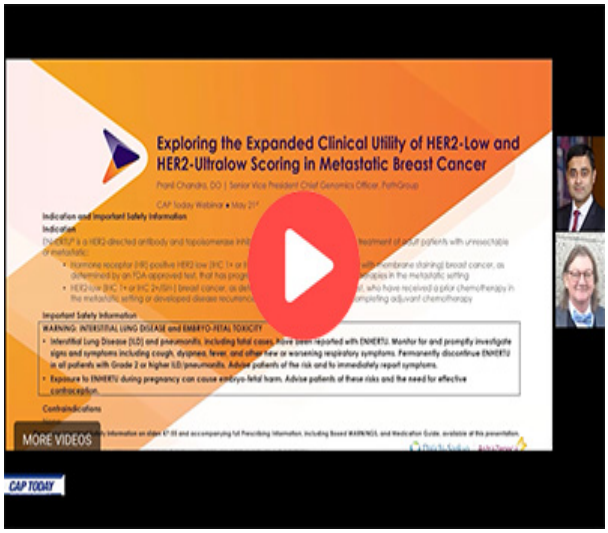
A Pathologist's Perspective: Exploring the Expanded Clinical Utility of HER2 IHC Scoring

in Metastatic Breast Cancer-May 21, 2025

written by CAP TODAY
August 19, 2025



Webinar presenter Pranil K. Chandra, DO, Senior Vice President, Chief Genomics Officer, PathGroup, discusses the expanded clinical utility of HER2 IHC scoring in metastatic breast cancer.

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From the President's Desk

written by CAP TODAY
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August 2025—I've written in this column many times that pathologists should be leaders of the laboratory. But all of the leadership skills we develop through that role also make us a good fit for many other leadership positions in our health care institutions and beyond. I have met CAP members who are chief medical officers, chief quality officers, presidents of their medical staff, and even CEOs of hospitals and health care networks. The current commander of one of the largest military medical centers in the U.S. is a pathologist.

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ArteraAI Prostate gets breakthrough device designation

written by CAP TODAY
August 19, 2025

Aug. 18, 2025—The FDA has granted breakthrough device designation to Artera's ArteraAI Prostate, an AI precision medicine tool intended to assist clinicians with risk-based decisions for patients with localized prostate cancer.

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Clinical pathology selected abstracts

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August 2025—The Accreditation Council for Graduate Medical Education (ACGME) oversees graduate medical education and closely monitors resident wellness. In 2017, the ACGME published findings from a national study outlining the causes of death among residents and fellows from 2000 through 2014. The most common overall cause of death was malignant neoplasm, and it was the leading cause of death among female residents and fellows. Suicide was the leading cause of death for male residents and the second leading cause for females. Twenty-three percent of deaths by suicide occurred in the first academic quarter of trainees' first year in their medical programs.

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Anatomic pathology selected abstracts

written by CAP TODAY
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August 2025—Certain subtypes of colorectal carcinoma pose diagnostic challenges in daily practice due to sometimes overlapping morphologic and immunohistochemical features and are associated with worse prognoses than poorly differentiated adenocarcinoma not otherwise specified (PDA-NOS). Other variants of poorly differentiated colon cancers with solid growth patterns that have, anecdotally, been recognized as posing diagnostic challenges include large cell neuroendocrine carcinoma (LCNEC), medullary carcinoma (MC), undifferentiated carcinoma (UC), and lymphoepithelioma-like carcinoma (LELC). The authors conducted a study to determine survival outcomes between patients with poorly differentiated adenocarcinoma and those with a variant carcinoma morphology that may affect prognosis. They also analyzed interobserver agreement among gastrointestinal pathologists at their institution in subclassifying poorly differentiated colorectal carcinoma. All consecutive patients with diagnoses of PDA-NOS, MC, LCNEC, UC, and LELC between July 2018 and July 2023 were included.

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Newsbytes

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August 2025—Recognizing the value of researching options before purchasing a big-ticket item, the College of American Pathologists has developed the AI Playground to help pathologists assess artificial intelligence tools before going all-in on a technology that may not end up suiting their needs, among

other potential issues. The playground will offer cutting-edge AI tools that pathologists can test-drive from the comfort of their own laboratories using simulated data sets on a platform designed specifically for that purpose. It will be available to CAP members at no charge and accessible via the CAP website after it is debuted in the CAP Innovation Hub and the College's booth at CAP25, in Orlando, next month.

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Molecular pathology selected abstracts

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August 19, 2025

August 2025—Childhood malignancies such as Wilms tumor—the most common type of kidney cancer in children—exhibit very few DNA changes when tested by traditional sequencing methods. Some of these types of tumors have fewer genetic anomalies than age-matched normal tissue. This raises the question, How can such genetically "quiet" malignancies emerge and progress without conventional driver mutations? To address this question, the authors employed high-resolution, ultra-deep sequencing to determine if hypomutation in juvenile kidney cancers characterized by a paucity of mutations, specifically Wilms tumor, is genuine or an artifact of conventional analytical constraints. By applying high-resolution duplex sequencing (Nanoseq) to Wilms tumors and matched normal kidneys from six pediatric patients, including four infants and two school-age children, the authors showed that standard bulk whole genome sequencing significantly underestimates the mutational burden in tumors from infants.

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