Appendiceal Endometriosis With Intestinal Metaplasia Mimicking Low-Grade Appendiceal Mucinous Neoplasm

Anne Chen, Sana Tabbara, MD, FASCP, and Brian Theisen, MD; George Washington University

Objectives: Intestinal metaplasia, defined by the presence of goblet cells, may rarely manifest in endometriosis. This may present a diagnostic dilemma when it involves the appendix, given the differential diagnosis of an appendiceal mucinous neoplasm at this location. We present the histologic and immunohistochemical findings of a cystic lesion involving the appendiceal wall that favored endometriosis with intestinal metaplasia.

Methods: This is a case study of a 36-year-old woman with stage 4 endometriosis who underwent a hysteroscopy and bilateral salpingo-oophorectomy for endometriosis debulking. Intraoperatively, appendiceal adhesions were noted and assumed to be endometriosis associated. As such, the decision for an appendectomy was made.

Results: Grossly, the appendix specimen demonstrated no discrete lesions. Histology revealed a mucin-filled cystic structure confined to the appendiceal tip lined by endocervical-type epithelium with goblet cells and associated endometrial stroma. The entire appendix was submitted and revealed foci of traditional endometriosis within the appendiceal wall. Immunohistochemistry of the mucinous lesion was positive for CD10 and ER in the stroma and positive for CDX2 in the epithelium. A PAX8 highlighted the epithelium in the foci of traditional endometriosis and was negative in the epithelium of the mucinous cystic lesion. The accompanying hysterectomy and bilateral salpingo-oophorectomy specimen contained adenomyosis and bilateral ovarian endometriomas.

Conclusion: The presence of endometrial stroma in association with this mucinous cystic lesion favors a diagnosis of endometriosis with intestinal metaplasia, despite the epithelial PAX8 negativity. This case is also unique in that the patient did not present with appendiceal symptoms or a discrete mass but was undergoing endometriosis debulking. An awareness of the possibility that endometriosis with intestinal metaplasia may involve the appendix and mimic an appendiceal mucinous neoplasm is important to avoid misdiagnosis and guide patient management.

Malakoplakia Mimicking Malignancy: Report of Three Cases and Review of the Literature

Suvra Roy, MD, Michael Covinsky, MD, Shahreen Billah, MD, and Hui Zhu, MD; The University of Texas Health Science Center at Houston

Objectives: Malakoplakia is a rare, granulomatous inflammatory condition that commonly affects immunocompromised patients. The genitourinary tract is the most frequently affected site. Patient usually presents with urinary tract infection symptoms. Very rarely, malakoplakia can mimic malignancy, with a locally infiltrative lesion seen on imaging study. In this study, we present three cases of malakoplakia mimicking malignancy from a single institutional experience.

Methods: Case 1: A 51-year-old female with no significant history presented with left flank pain. CT scan revealed ill-defined enhancing left renal mass that infiltrated into the stomach. Clinical impression was metastatic renal cell carcinoma. Upon surgery, a large invasive upper pole renal tumor was identified that invaded into the distal tail of the pancreas, spleen, posterior left stomach, and diaphragm muscle. Left radical nephrectomy with en bloc resection of spleen, distal pancreas, and portion of left stomach was performed. Case 2: A 51-year-old homeless male with a history of HIV, hepatitis B, and cryptococcal meningitis presented with hematuria. CT scan revealed a 3.5-cm mass in the left kidney, concerning for renal cell carcinoma. Case 3: A 61-year-old male with a history of diabetes mellitus presented with microscopic hematuria. Cystourethroscopy revealed multiple nodular lesions diffusely scattered throughout the bladder concerning for urothelial carcinoma.

Results: Microscopic examination of all three cases revealed benign histiocytic proliferation with a mixed inflammatory infiltrate comprising primarily numerous plasma cells and macrophages. Numerous basophilic refractile bodies, consistent with Michaelis-Gutmann bodies, were highlighted by special stains for PAS and iron. A prominent component of myofibroblastic proliferation was also seen.

Conclusion: Malakoplakia is a rare inflammatory condition commonly associated with immunosuppression. Extensive organ involvement can mimic metastatic carcinoma based on radiology imaging. It is important to be aware of this rare entity as accurate diagnosis can prevent unnecessary surgical intervention.

Interobserver Variability in Squamous Cell Carcinoma of the Penis: Analyzing the Degree of Differentiation by Pathologic Subspecialty With Correlation to Pathologic Stage

Patrick Mullane, MD, Brian Willis, MD, Michelle Dimarco, MD, Laura Plantinga, PhD, Benjamin Stoff, MD, Viraj Master, MD, PhD, Adeboye Osunkoya, MD, and Carla Ellis, MD; Emory University

Objectives: Assessment of the risk of metastatic spread and subsequent treatment of inguinal lymph node metastases are the most important factors for survival among penile cancer patients. Tumor grading is often used as a prognostic indicator for inguinal lymphadenectomy. Tumor grading in squamous cell carcinoma (SCC) of the penis has been based on a four-tiered system...