

## Short Report in Pathology

### Organ system: Genitourinary Tract

Prepared by: Kevin Dell'Aquila, DO (1), Derek Jones, MD (2)

1 = Resident

2 = Attending Pathologist

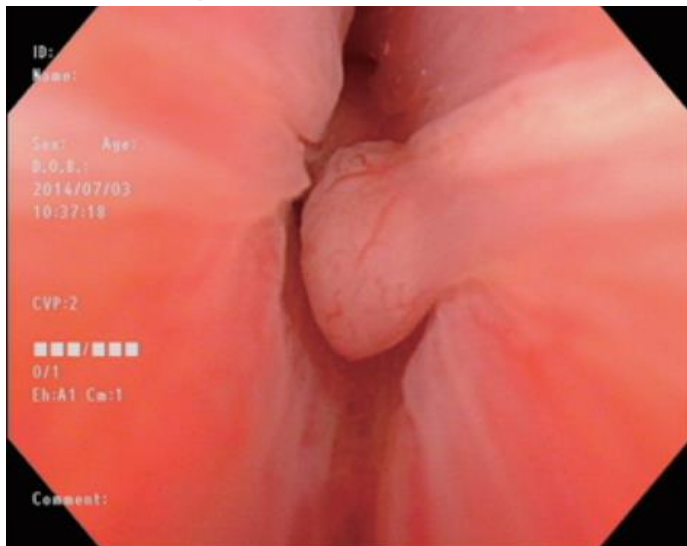
Department of Pathology, NYU Long Island School of Medicine, Mineola, New York.

12/10/2024

### History:

Patient is an 84-year-old female with a history of gross hematuria and findings consistent with urothelial carcinoma on X-ray fluoroscopy who underwent a cystoscopy and transurethral resection for high suspicion of neoplasm.

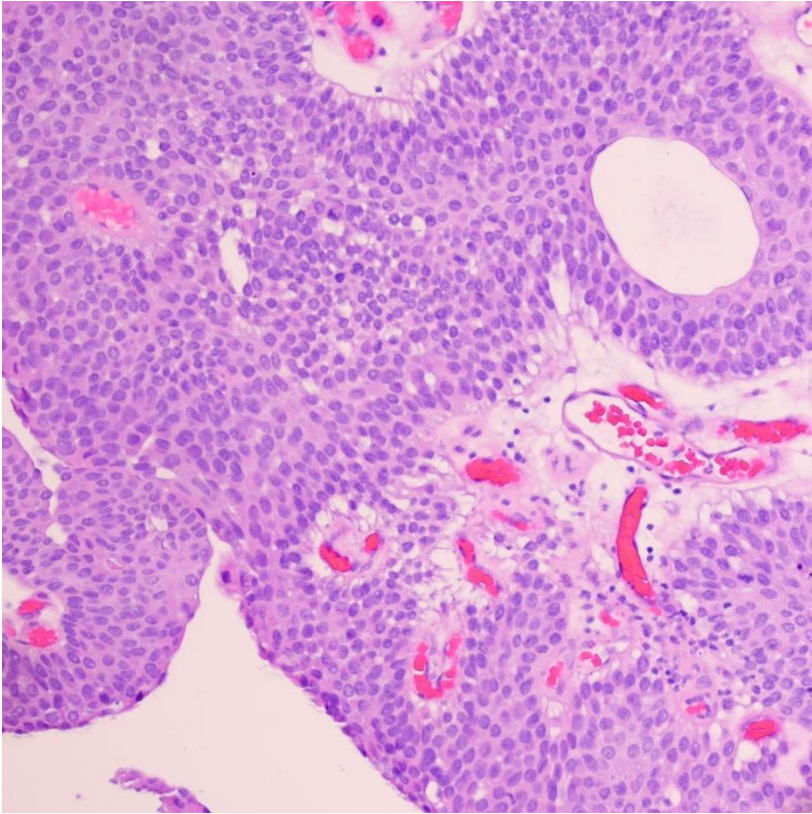
### Gross Image:



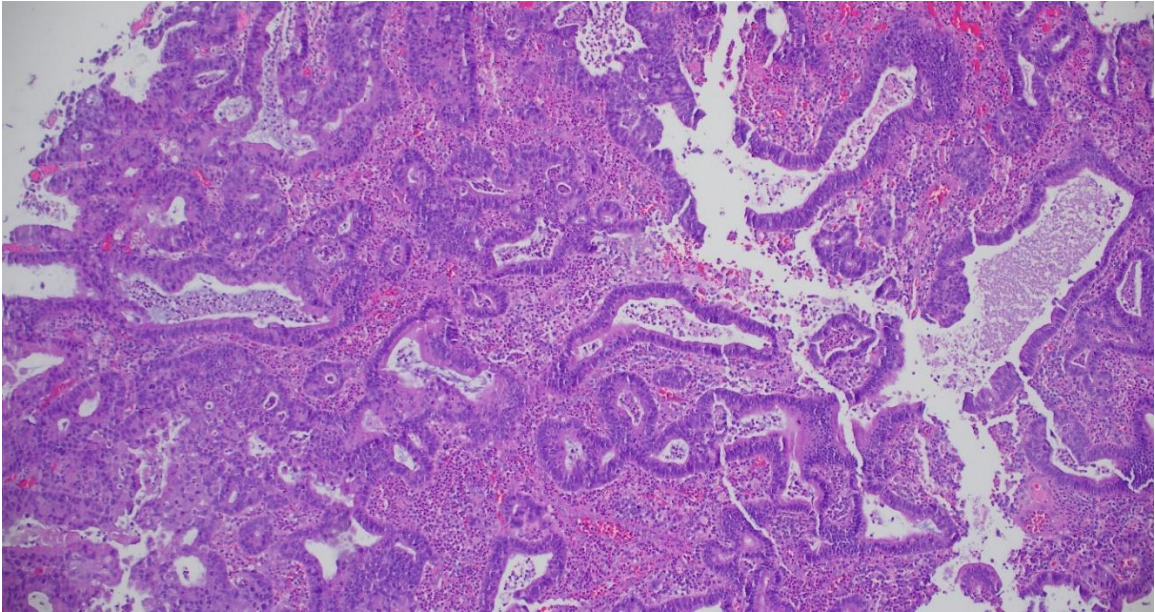
Cystoscopic findings of a bladder tumor diagnosed as urothelial carcinoma

Image citation: Makimoto G, et al. Successful Treatment of Metastatic Urothelial Carcinoma after Accurate Diagnosis by Immunohistochemistry. Acta Med Okayama. 2019 Jun;73(3):279-284.

**Microscopic Images:**



High grade urothelial carcinoma (H&E, 200x)



Component of tumor with glandular differentiation (H&E, 100x)

## Diagnosis:

High-grade urothelial carcinoma with divergent glandular differentiation

## Differential diagnoses:

1. Urothelial carcinoma with metastatic adenocarcinoma
2. Urothelial carcinoma with primary urothelial adenocarcinoma

## Discussion:

Urothelial carcinoma (UC) makes up about 90% of bladder tumors, with 10% showing glandular differentiation. These histologic subtypes influence prognosis, treatment decisions, and chemotherapy response. Glandular differentiation (GD), even when focal, is linked to a poorer prognosis and higher tumor grade. Cases of UC with GD treated with neoadjuvant chemotherapy (NAT) have a demonstrated survival benefit over cases not treated with NAT.

## References:

1. Amin MB. Histological variants of urothelial carcinoma: diagnostic, therapeutic and prognostic implications. *Mod Pathol.* 2009 Jun;22 Suppl 2:S96-S118. doi: 10.1038/modpathol.2009.26. PMID: 19494856.
2. Ogbue O, Haddad A, Almassi N, Lapinski J, Daw H. Overview of histologic variants of urothelial carcinoma: current trends and narrative review on treatment outcomes. *Transl Androl Urol.* 2022 Jun;11(6):877-901. doi: 10.21037/tau-22-43. PMID: 35812199; PMCID: PMC9262735.