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Management of Inverted Papilloma During Holmium Laser Enucleation of the Prostate

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Inverted papilloma of the prostatic urethra is an especially rare finding. A 75-year-old man with urinary retention wished to proceed with a holmium laser enucleation of the prostate (HoLEP) and was found to have a mass arising from his prostate vs bladder on preoperative imaging. Cystourethroscopy revealed the mass arising from the median lobe of the prostate. After transurethral resection and frozen analysis confirmed the benign pathology of an inverted papilloma, the patient subsequently underwent a successful HoLEP during the same surgical setting. Images of this rare prostatic mass are presented to increase urologist recognition and to assist management during HoLEP. *UROLOGY* 116: e5–e6, 2018. © 2018 Elsevier Inc.

CASE REPORT

A 75-year-old Chinese man suffering from urinary retention wished to proceed with a holmium laser enucleation of the prostate (HoLEP). Preoperative prostate magnetic resonance imaging estimated a volume of 96 cc, with an incidental ~2 cm frond-like mass arising from either the prostate or the trigone (Fig. 1). Voided cytology was negative for malignancy, and prostate-specific antigen was stable at 2.91 ng/mL. The patient consented to a diagnostic cystourethroscopy and transurethral resection of the mass, with the understanding that if intraoperative pathology was benign, a HoLEP would be performed.

Figure 2 showcases intraoperative cystourethroscopic images. The stalk emanating from the median lobe (Fig. 2C) clearly demonstrates the mass arising from the prostate. After bipolar loop resection, the mass was sent for frozen section. Pathology confirmed an inverted papilloma ~20 minutes later, and a successful HoLEP was subsequently performed.

Hematoxylin- and eosin-stained sections displayed thin intersecting ribbons of bland urothelial cells without cytologic atypia, pleomorphism, or increased mitotic activity (Fig. 3).

Inverted papilloma is an unusual finding within the genitourinary tract and is especially rare when arising from the

Figure 1. Magnetic resonance image of an inverted papilloma. Sagittal T2 fast relaxation fast spin echo magnetic resonance image of the prostate. The arrow denotes a frond-like mass arising near the bladder trigone vs the intravesical portion of the prostate median lobe.

prostatic urethra.^{1,2} To our knowledge, it has yet to be described while performing a HoLEP. These images help with increasing the urologist's recognition and management of this benign neoplasm.

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Figure 2. Cystourethroscopic images of the prostatic urethra and inverted papilloma. (A) Appearance of the a prostatic urethra showing trilobar prostatic enlargement. (B) Inverted papilloma at the level of the bladder neck. (C) Stalk of the inverted papilloma originating from the median lobe of the prostate. (D) Resection bed following transurethral resection.

Figure 3. Histologic features of an inverted papilloma. (Left) Low power (10 $\times$) view of palisading, interconnected ribbons of the epithelium; scale bar 100 μ m. (Right) Medium power (20 $\times$) view showing bland cytology and thin basement membrane at the interface with underlying stroma. The basaloid cell layer has an increased nuclear-to-cytoplasmic ratio with cell maturation and increased cytoplasm toward the center of the ribbons; scale bar 50 μ m.