

BENIGN POLYP WITH PROSTATIC-TYPE EPITHELIUM OF THE URINARY BLADDER: A CASE REPORT

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We report a case of benign polyp with prostatic-type epithelium of the urinary bladder. A 58-year-old male presented with gross hematuria. Cystoscopic examination revealed a 2-mm polypoid lesion in the mid trigone.

Immunohistochemical demonstration of prostatic acid phosphatase and prostatic specific antigen in the urothelial cells as well as the prostatic-type epithelial cells suggested the histogenesis of this polyp to be metaplasia of the urothelium.

Key words: Benign polyp of prostatic-type epithelium, Ectopic prostatic tissue, Bladder

INTRODUCTION

Ectopic prostatic tissue is occasionally observed in the urethra, and less commonly observed in the urinary bladder as a polypoid lesion^{1,2)}. Experimental studies showed that mouse embryonic mesenchymal cells can induce prostate-like acini formation of the adult mouse bladder epithelium³⁾, which suggests that human urothelial cells can develop into prostatic metaplasia in response to certain stimuli. We report a case of benign polyp of the prostatic-type epithelium (BPPE) of the urinary bladder which is likely metaplastic in origin.

CASE REPORT

A 58-year-old male presented with painless gross hematuria. Cystoscopic examination revealed a 2 mm polypoid lesion in the mid trigone, which was resected transurethrally. Microscopic examination of the polypoid lesion revealed a submucosal nodule of glands consisting of simple columnar epithelial cells covered by a flattened normal urothelium. The immunoperoxidase studies by a conventional avidin-biotin-complex technique, using anti-

bodies raised against prostatic acid phosphatase (PAP) and prostatic specific antigen (PSA), gave a positive immunoreaction for PAP and PSA in the glandular cells as well as scattered urothelial cells (Fig. 1A & B). Diagnosis of BPPE of the urinary bladder was established.

DISCUSSION

Several hypotheses have been proposed for the histogenesis of the benign polyp with the prostatic-type epithelium (BPPE) including the prolapse of the prostatic ducts⁴⁾, developmental abnormality⁵⁾, pubertal stimulation of a vestigial remnant⁶⁾ and the metaplasia of the urothelium¹⁾.

As for the BPPE of the urinary bladder, metaplasia of the urothelium is the most likely, because many cases of cystitis cystica/glandularis show positive immunoreaction for PAP and PSA⁷⁾, which suggests the functional or antigenic differentiation of the urothelial cells toward the prostatic cells. Our case further supports the metaplastic origin of the BPPE of the urinary bladder, since scattered urothelial cells as well as submucosal prostatic-type cells showed positive immunoreaction for PAP and PSA.

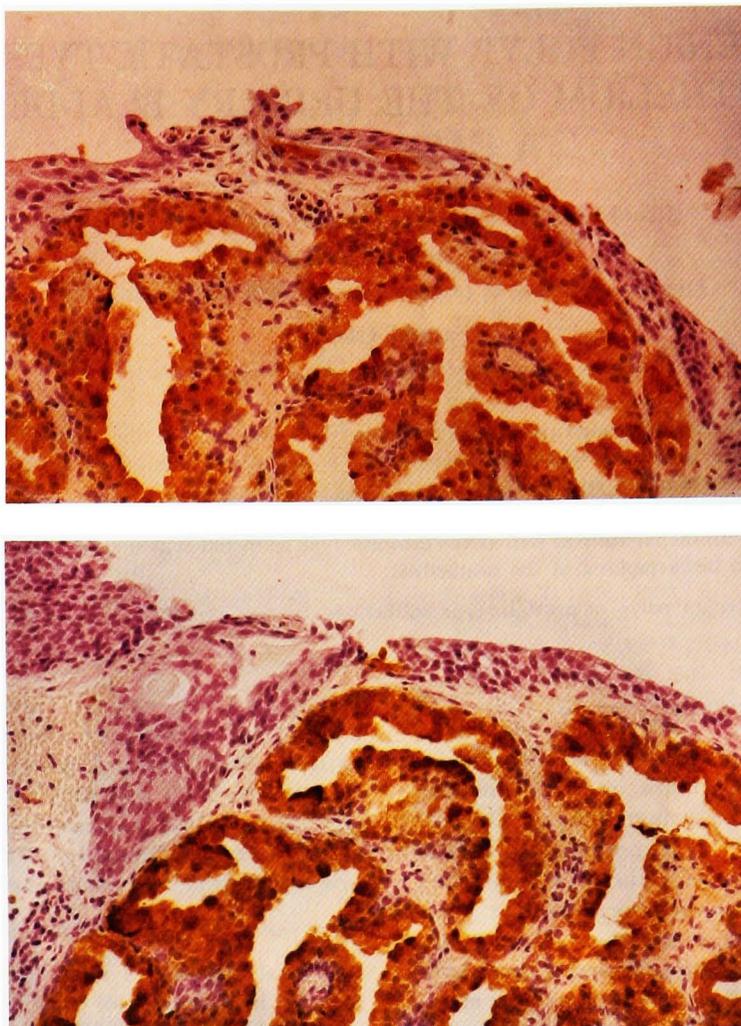


Fig. 1. Immunoperoxidase studies of the biopsied specimen. Positive immunoreaction for PAP (A) and PSA (B) is observed in the scattered transitional cells as well as prostatic-type glandular cells.

Since intestinal metaplasia may be associated with malignant transformation of the urothelium⁸⁾, careful follow up of the case of BPPE of the urinary bladder, which is also likely to be metaplastic in origin, may be important.

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和文抄録

膀胱に発生した前立腺型上皮良性ポリープの1例

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膀胱に発生した前立腺型上皮良性ポリープの1例を報告する。患者は58歳男性で、肉眼的血尿を主訴として来院。膀胱鏡で三角部正中に2mm大のポリープ様病変を認めた。

免疫組織学的に前立腺性酸性フォスファターゼと前立腺特異抗原が前立腺型上皮細胞と尿路上皮細胞に認められたことから、このポリープは尿路上皮の化生により発生したと考えられた。

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