

Primary Malignant Melanoma of the Male Urethra

Nobumasa Fujimoto, Masayoshi Oda, Shoji Shimoe

Department of Urology, Osaka National Hospital, Osaka, Japan

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Abstract. We report a case of primary malignant melanoma of the male urethra, increasing the total number of reported cases to 31. The experience with our case suggests that urinary cytology is a diagnostic method for malignant melanoma and essential in the preoperative diagnosis of this disease.

Primary malignant melanoma of the male urethra is a rare disease, with only 30 cases previously reported in the literature [1-7]. We report a new case of male urethral melanoma.

Case Report

A 68-year-old Japanese male was seen in February 1985 with complaints of urethral bleeding for the last 2 months and dysuria of recent onset. A palpable mass was noted in the area of the pendulous urethra. The inguinal lymph nodes were not enlarged on palpation. There was no evidence of nevi or other cutaneous lesions. Labora-

tory findings were normal except that urinary cytology was positive for malignancy, initially suspected to be a transitional cell carcinoma. Urethrocystogram showed a filling defect in the proximal pendulous urethra and cystourethroscopy revealed a black nodular lesion. The bladder mucosa was unremarkable. Metastatic evaluation, including physical examination, chest X-ray, excretory urogram and abdominal computerized tomography scan, was negative.

Partial urethrectomy and construction of suprapubic cystostomy were performed.

The resected specimen showed an irregular black tumor with nodular formation, and several submucosal satellite lesions (fig. 1). Histological examination confirmed malignant melanoma (fig. 2). Polygonal cells, containing large nucleoli and heavy accumulation of

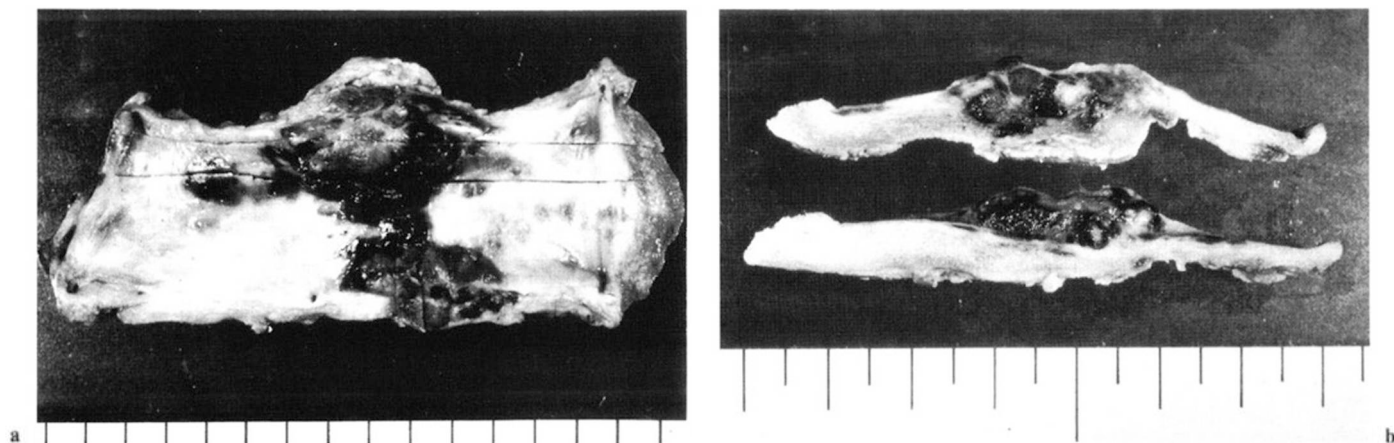


Fig. 1. a Macroscopic appearance of surgical specimen showing a pigmented tumor. **b** Cut surface.

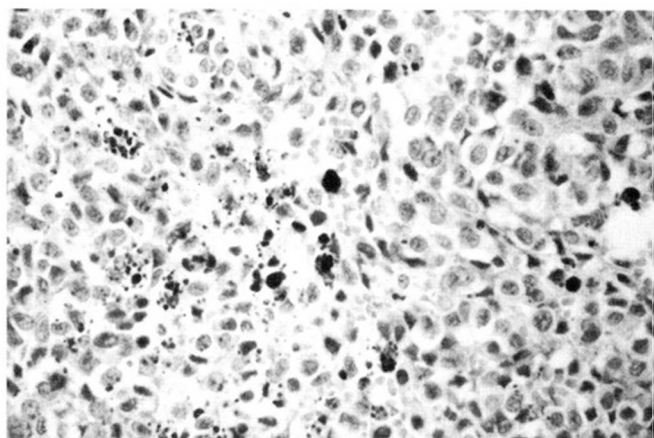


Fig. 2. Histological section of the urethral melanoma. HE. Reduced from $\times 200$.

melanin pigments, were proliferating with nestal structures. The tumor invaded deeply into the corpus spongiosum and displayed venous involvement. The preoperative urine cytology specimen was reviewed postoperatively and those cells diagnosed before the operation as a malignancy proved to be melanoma cells, the cytoplasm of which was stained light green with Papanicolaou stain and contained melanin granules (fig. 3).

Although he was subsequently treated with combined chemotherapy consisting of dacarbazine, nimustine hydrochloride, peplo-mycin and vincristine, and immunotherapy with α -interferon, the disease progressed rapidly and he died of multiple pulmonary metastases 4 months after the operation.

Discussion

A review of the literature on primary malignant melanoma of the male urethra revealed only 30 cases, including 1 case reported in the Japanese literature [1–7].

In most of these 30 cases biopsy was performed before the operation and there have been no cases in which urinary cytology was helpful in the preoperative diagnosis of this disease. In our case, however, melanoma cells were demonstrated in the preoperative urinary cytology specimen, suggesting that urinary cytology is as useful as biopsy for the diagnosis of malignant melanoma of the male urethra.

Urinary cytological examination is of importance before the operation because a probe biopsy from a malignant melanoma should be avoided.

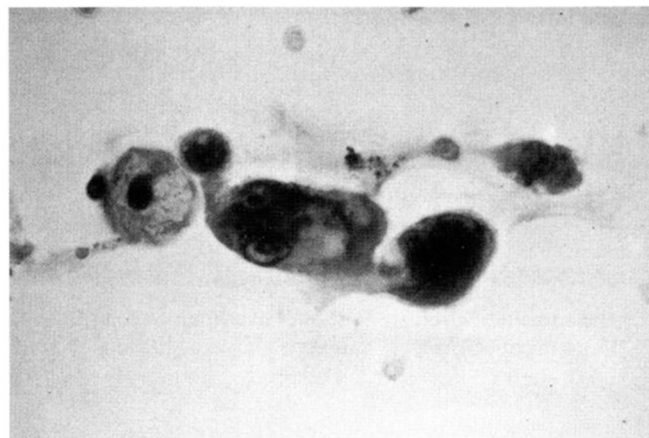


Fig. 3. Malignant melanoma cells in the urinary cytology specimen. Papanicolaou stain. Reduced from $\times 400$.

References

- 1 Weiss J, Elder D, Hamilton R: Melanoma of the male urethra: Surgical approach and pathological analysis. *J Urol* 1982;128:382–385.
- 2 Kokotas NS, Kallis EG, Fokitis PJ: Primary malignant melanoma of male urethra. *Urology* 1981;18:392–394.
- 3 Begun FP, Grossman HB, Diokno AC, Sogani PC: Malignant melanoma of the penis and male urethra. *J Urol* 1984;132:123–125.
- 4 Sanders TJ, Venable DD, Sanusi ID: Primary malignant melanoma of the urethra in a black man: A case report. *J Urol* 1986;135:1012–1014.
- 5 Manivel JC, Fraley EE: Malignant melanoma of the penis and male urethra: 4 case reports and literature review. *J Urol* 1988;139:813–816.
- 6 Pow-Sang JM, Klimberg IW, Hackett RL, Wajzman Z: Primary malignant melanoma of the male urethra. *J Urol* 1988;139:1304–1306.
- 7 Iwamoto H, Kumaki T, Fueda M, Fuse T, Takatoh H, Yamazaki S, Kaneko H: Cytology of malignant melanoma arising from male urethral mucosa: A case report. *Jpn J Clin Cytol* 1982;21:98–103.

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Nobumasa Fujimoto, MD
Department of Urology
Hyogo Prefectural Nishinomiya Hospital
Rokutanji-cho 13-9
Nishinomiya, Hyogo-ken 662 (Japan)