

## Verrucous Carcinoma of the Bladder Unassociated with Bilharzial Cystitis : A Case Report<sup>1</sup>

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Verrucous carcinoma that occurs only in the bladder is a very rare, well-differentiated squamous cell carcinoma. The tumor is a histologically and clinically distinctive variant of squamous cell carcinoma, and is almost exclusively associated with bilharzial infection.

We report the radiologic findings of a case of verrucous carcinoma of the bladder unassociated with bilharzial infection.

**Index Words :** Bladder neoplasms, CT

Verrucous carcinoma, a wart-like, highly differentiated variant of squamous cell carcinoma, most commonly develops in the oral cavity, larynx, vagina, penis, and perianal regions(1, 2). Verrucous carcinoma is characterized grossly by its exophytic and wart-like appearance(3). Unlike transitional cell or other squamous cell carcinomas of the bladder, verrucous carcinoma does not metastasize, and complete local excision is curative. So recognition of the lesion may have important therapeutic and prognostic implications. Verrucous carcinoma of the bladder has been reported, but in the absence of coexisting bilharzial infection is exceedingly rare. We report the radiologic findings of a case of verrucous carcinoma of the bladder and review the literature.

### Case Report

A 69-year-old woman was referred to the hospital with turbid, foul odorous urine for 2 months. For one year previous, she had several episodes of spontaneous passage of renal stones. She also had urinary frequency, dysuria and nocturia. Urine culture was negative.

Excretory urogram revealed an irregular, polypoid

mass in the bladder(Fig. 1). Contrast enhanced CT scan (Fig. 2) showed an irregular, wart-like lobulated mass without perivesical extension or lymph node enlargement.

Cystoscopy confirmed a mass arising from the posterosuperior wall of the bladder, and transurethral biopsy of the tumor revealed anaplastic proliferation of squamous cells with focally submucosal stromal and capillary invasion.

Two weeks later, the patient underwent a radical cystectomy, and no lymph node involvement was noted.

The patient has no evidence of recurrence for 1 year postoperatively.

### Discussion

Verrucous carcinoma of the bladder is rare and it occurs almost exclusively in association with bilharzial infection(4), but seven cases that are not associated with schistosomiasis infection have been reported(5, 6). Verrucous carcinoma was first described by Ackerman in 1948 in the oral cavity(2). There are controversies regarding the nomenclature of this tumor. In addition to verrucous carcinoma or verrucous squamous carcinoma, Buschke-Loewenstein tumor and giant condylomata accuminata have been used to describe this same entity.

Blackmore et al. (3) reported that the radiological finding of verrucous carcinoma is an irregular, multilobular mass in the bladder with numerous rounded,

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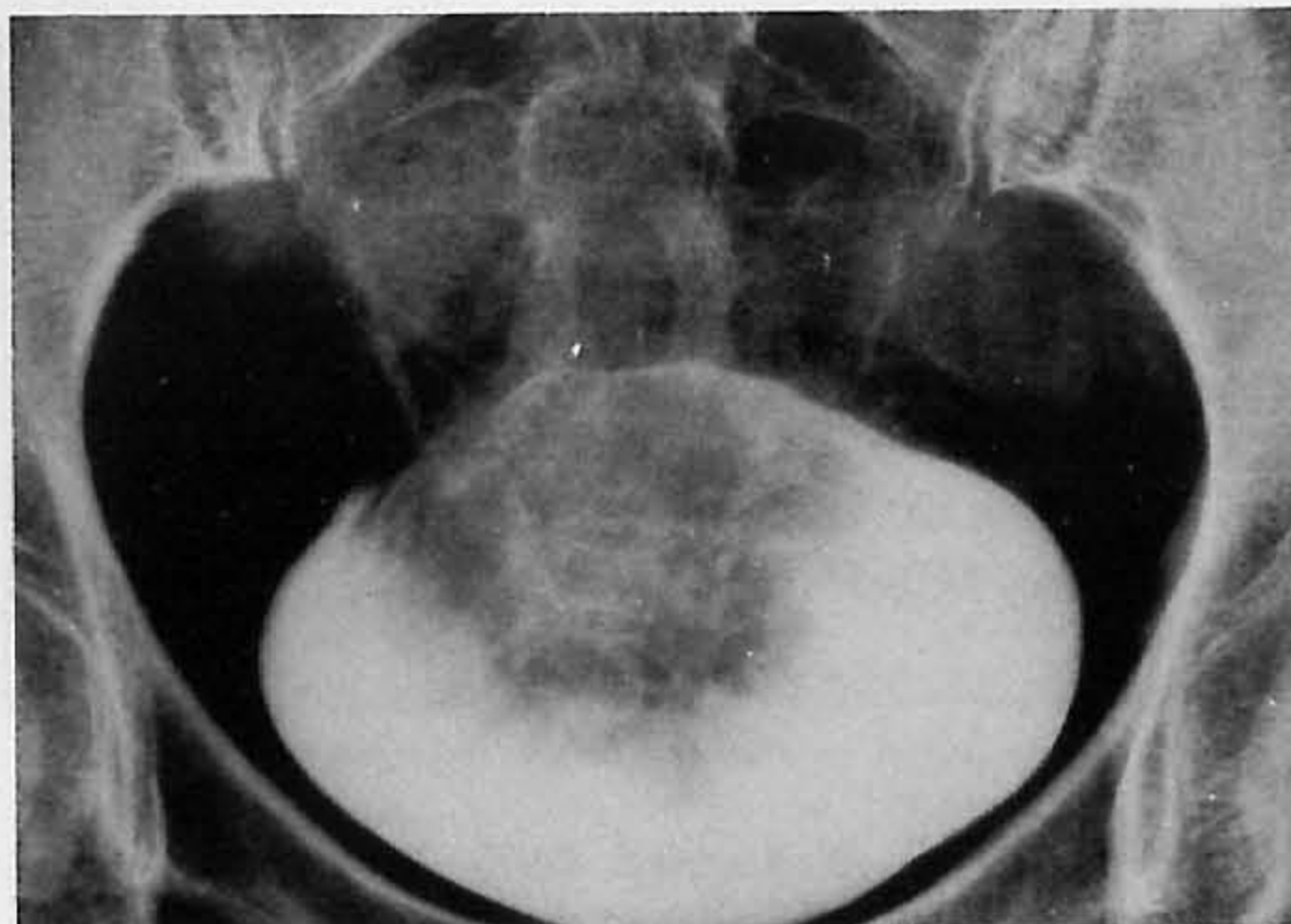
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Received December 16, 1996; Accepted March 3, 1997

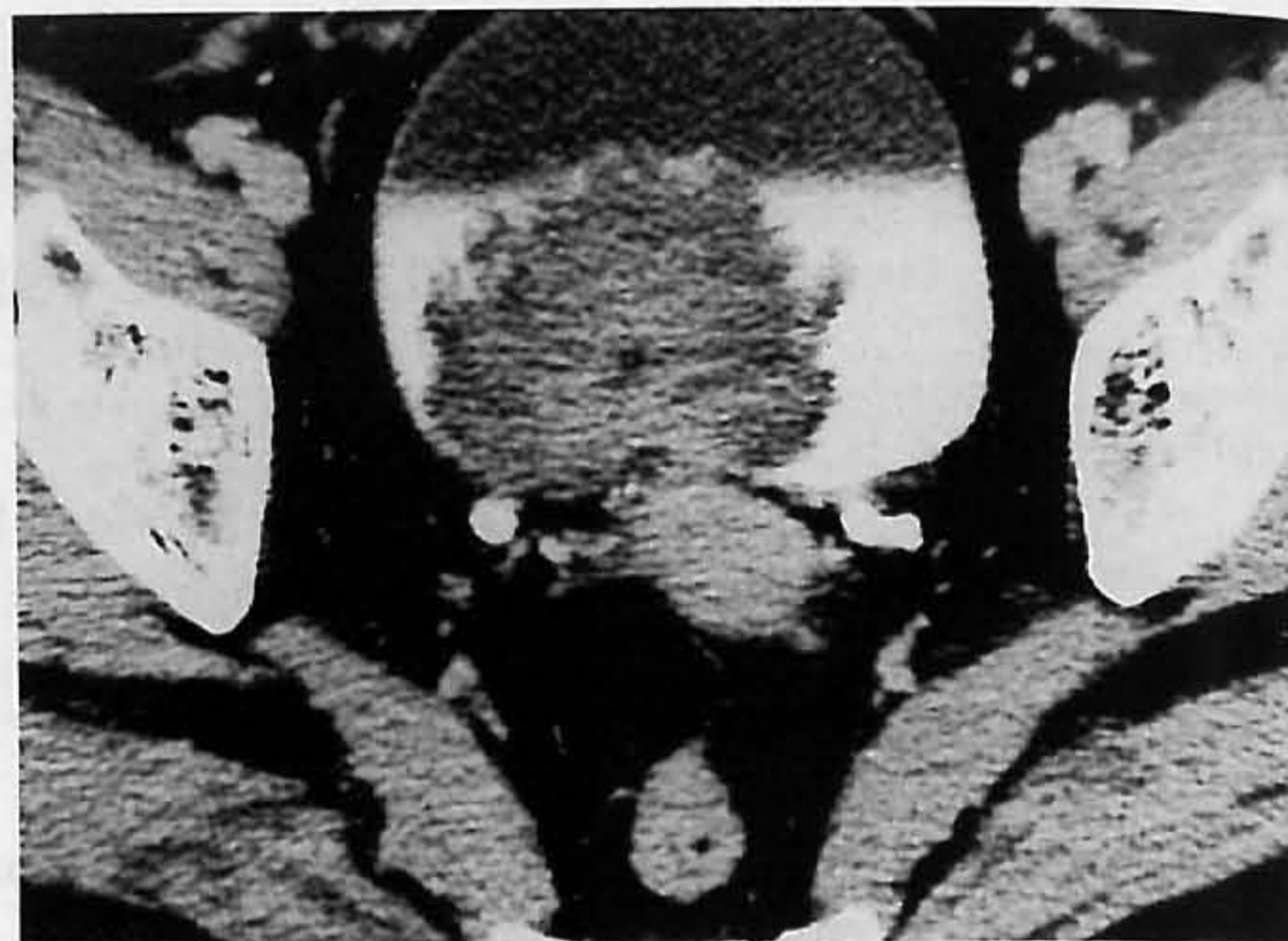
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**Fig. 1.** Excretory urogram(cystogram) shows a large irregular, polypoid mass in the urinary bladder.



**Fig. 2.** Contrast enhanced CT shows an irregular, wart-like lobulated mass arising from the posterior wall of the bladder.

almost botryoid projections on cystogram and CT scan. These radiologic findings are not different from our case.

Verrucous carcinoma has several pathologic criteria for the diagnosis. It must be exophytic with multiple filiform or warty surface projections composed of thick folds of well differentiated squamous epithelium in its superficial and deep parts, lack the histological features of anaplasia, and have pushing islands of squamous cells without a central vascular and connective core(2, 7).

Due to the absence of distant metastases and lymph node involvement, local excision is definitive therapy even for large lesions. Hagen et al. (8) reviewed therapeutic results in the more common verrucous carcinoma of the larynx. They reported a 92% cure rate following surgical resection of tumors of all stages. In our case, radical cystectomy was performed, because initial diagnosis of the tumor was infiltrating squamous cell carcinoma.

The differential consideration in verrucous carcinoma includes benign neoplasm(papilloma, hemartoma, leiomyoma), other carcinomas(transitional cell, adenocarcinoma), cystitis cystica, foreign bodies (hematoma, calculus, fungus ball), and endometriosis (3).

In summary, although verrucous carcinoma of the

bladder is a very rare entity of which little is known, it has relatively distinctive radiological and pathologic features.

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## 주혈흡충성 방광염과 관계없이 방광에 발생한 사마귀상암:1예 보고<sup>1</sup>

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손철호 · 김 홍 · 우성구 · 서수지 · 조승제

방광에 발생하는 사마귀상암은 매우 드문 질환으로 분화도가 좋은 편평세포암이다. 사마귀상암은 조직학적, 임상적으로 구별되는 편평세포암의 변종으로 알려져있고, 대부분의 경우 주혈흡충감염과 관련이 되어 있다. 저자들은 주혈흡충감염이 없이 방광에 발생한 사마귀상암 1예의 방사선학적 소견을 보고한다.