

A CASE OF PROSTATE CANCER PRESENTING AS A SYMPTOMATIC ABDOMINAL MASS

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An 80-year-old man presented to our hospital complaining of an abdominal mass. On physical examination, a hard fist-sized mass was noted in the right lower abdomen. Needle biopsy of the prostate and abdominal mass showed moderately differentiated adenocarcinoma. The chest roentgenogram revealed multiple lung metastases. Clinical diagnosis was T3N3M1, stage D₂. Serum prostate specific antigen (PSA) level (8,600 ng/ml) normalized after 3 months of anti-androgen therapy. Lung metastases disappeared after 11 months, while the abdominal mass was reduced to 25% of the pretreatment size after followup of 30 months.

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Key words: Prostate cancer, Abdominal mass

INTRODUCTION

Carcinoma of the prostate usually metastasizes to the bones of the pelvis and lumbar spine. It is extremely rare for a patient with carcinoma of prostate to present with a huge abdominal mass. Here we report an unusual case of this type that responded well to anti-androgen therapy.

CASE REPORT

An 80-year-old man visited the Department of Medicine of our hospital complaining of anorexia, fatigue, and an abdominal mass. Physical examination revealed a hard, fixed, and fist-sized mass in the right lower abdomen. CT scanning of the pelvis revealed an enlarged prostate gland and a retroperitoneal tumor pushing the bladder to the left (Fig. 1). Needle biopsy of the abdominal mass was performed. Microscopic examination showed metastatic adenocarcinoma of the prostate and immunohistochemical examination showed strong staining for PSA and prostatic acid phosphatase (PAP) (Fig. 2). Under a suspected diagnosis of lymph node metastasis of prostate cancer, he was referred to the Department of Urology.

His prostate was the size of a goose egg, hard, and without nodularity on digital rectal examination. The serum PSA level was 8,600 ng/ml (Delfia) and the serum PAP level was 310 ng/ml (RIA). Excretory pyelography revealed that the bladder was displaced to the left. Transrectal ultrasonography revealed a hypoechoic lesion in the prostate. Although multiple lung metastases were seen on chest radiographs and CT, bone scintigraphy revealed no metastases. Transrectal needle biopsy of the prostate gland confirmed the diagnosis of moderately

differentiated adenocarcinoma, the morphology of which was consistent with that of the abdominal mass.

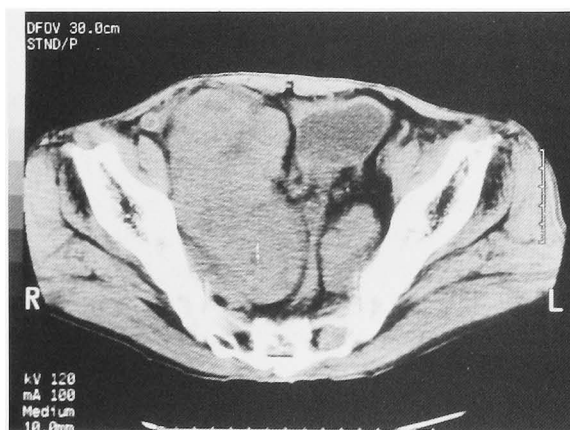


Fig. 1. CT scan of the pelvis before treatment shows a retroperitoneal tumor pushing the bladder to the left.

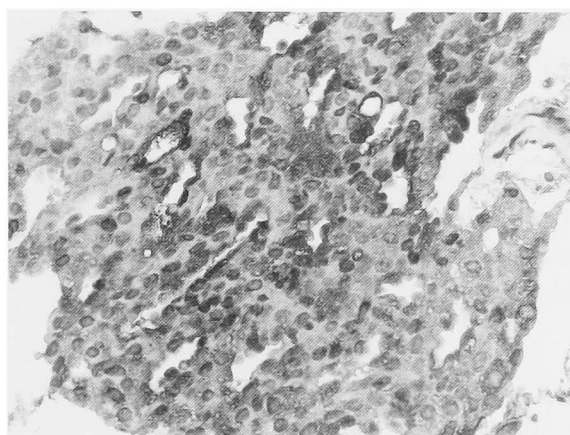


Fig. 2. Biopsy of the abdominal mass. The tumor shows strong staining for PSA (immunohistochemical staining, $\times 400$).

Table. Summary of clinical data for 22 patients with prostate cancer with a huge abdominal metastatic mass

Grade	well	2
	moderately	5
	poorly	10
	unknown	5
		22
Distant metastases	bone	9
	lung	1
	bone and lung	1
	none	5
	unknown	6
		22
Stage	D1	3
	D2	18
	unknown	1
		22
Evaluation of 1st treatment	Partial Response	13
	Progressive Disease	0
	unknown	9
		22
Prognosis	alive	21
	death	1
		22

Accordingly, the final diagnosis was prostate cancer (cT3N3M1, stage D2), and treatment with an LH-RH agonist (leuporelin 3.75 mg/4 wks) and diethylstilbestrol diphosphate (500 mg/day) was performed for 30 days. Then, diethylstilbestrol was changed to estramustin phosphate (560 mg/day). Five months later, estramustin phosphate was stopped because of side effects, such as epigastralgia and anorexia. Total androgen blockade therapy with leuporelin and flutamide (375 mg/day) was subsequently given for 23 months.

The serum PSA level decreased to within the normal range after 3 months, and the multiple lung metastases disappeared 11 months after the start of anti-androgen therapy. Although the abdominal mass can still be observed on CT scans, it has decreased to one quarter of the original size (Fig. 3). Therefore, the total objective response according to the General Rules for Clinical Pathological Studies on Prostate Cancer¹⁾ was defined as a partial response. The patient has remained well with no symptoms despite his persistent tumor for 30 months as of March 1997.

DISCUSSION

Dossot first reported the prostatico-pelvic diffuse, a huge lymph node metastasis that rapidly invades the entire pelvis in 1930²⁾ According to Corriere et al.³⁾, patients presenting with an abdominal mass accounted for only 2 out of 525 cases (0.4%). This

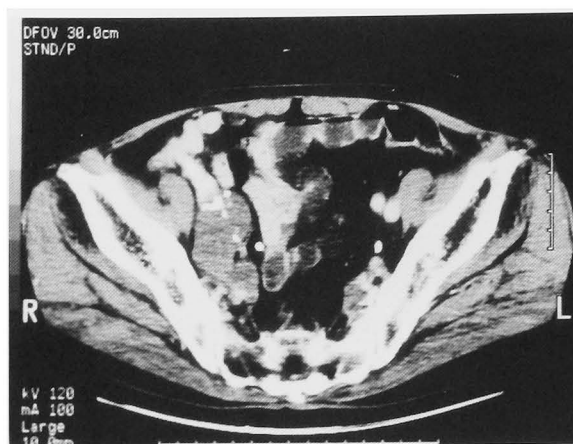


Fig. 3. CT scan of the pelvis after treatment revealed the abdominal mass to have decreased to one quarter of the original size.

was considered to be because the main metastatic route of prostate cancer is hematogenous rather than lymphatic. However, further clinical studies revealed that the incidence of patients with unsuspected and clinically undetectable metastatic disease in the pelvic nodes was quite high, contrary to expectation. Donohue et al.⁴⁾ reported that 85 out of 343 patients (24.8%) with stage A or B disease had positive nodes. Their review of some other studies revealed that out of 2458 patients with stage A, B, and C adenocarcinoma of the prostate, 726 patients (29.5%) had positive nodes, while 288 out of 1,512 patients (19.0%) with stage A and B disease had positive nodes. Their results were confirmed by recent staging lymphadenectomy studies. This disagreement between clinical and histopathological staging poses a problem such as in the selection of therapy.

However, it is extremely rare for a patient with carcinoma of the prostate to present with a huge lymph node metastasis palpable as an abdominal mass. Although 10% of patients with prostate cancer have complaints chiefly related to metastases⁵⁾, most of them have bone metastases. Therefore, our case was rare and only the 22nd reported in Japan.

Nakagawa et al.⁶⁾ reported four characteristics of prostate cancer with huge lymph node metastases: 1) many of these tumors are poorly differentiated adenocarcinomas, 2) the duration of symptoms is usually quite long, 3) bone metastasis is rare, and 4) the response to anti-androgen therapy is good. The clinical data of the cases reported previously in Japan as prostate cancer presenting with a huge abdominal mass are summarized in the Table. Of 17 cases with tumor histology reported, 2 were well differentiated, 5 were moderately differentiated, and 10 were poorly differentiated adenocarcinoma. Of 16 cases with metastases reported, 10 were bone metastases (6 of

them were poorly differentiated adenocarcinoma), 2 were lung metastases, and 1 case had both types of metastases. All of them were treated with hormone therapy or radiation therapy, and responded well. During follow-up ranging from 3 to 84 months (median: 26.6 months), only 1 patient died of prostate cancer. Except for the high incidence of skeletal metastasis, these findings are consistent with those reported by Nakagawa et al.⁶⁾

The prognosis of stage D₂ disease is related to the response to the initial anti-androgen therapy⁷⁾ Akimoto et al.⁸⁾ reported that the prognosis of patients whose tumor markers were normalized by 6 months after the start of antiandrogen therapy was better than that of those with tumor markers not normalized during the same period. In our case, the serum PSA level decreased to within the normal range within 3 months after the start of anti-androgen therapy. However, constant careful monitoring of our patient will be necessary.

REFERENCES

- 1) Japanese Urological Association and Japanese Pathological Society. General rules for clinical pathological studies on prostate cancer. 2nd ed. Kanehara, Tokyo, 1992
- 2) Dossot R: Cancer of the prostate: its origin and extension. *J Urol* **23**: 217-244, 1930
- 3) Corriere JN, Cornog JL and Murphy JJ: Prognosis in patients with carcinoma of the prostate. *Cancer* **25**: 911-918, 1970
- 4) Donohue RE, Augspurger RR, Mani JH, et al.: Pelvic lymph node dissection; guide to patient management in clinically locally confined adenocarcinoma of prostate. *Urology* **6**: 559-565, 1982
- 5) Okada K and Oishi K: Prostate cancer. *Nippon Rinsho* **41**(suppl): 1409-1417, 1983
- 6) Nakagawa H, Miyazaki S and Ito N: A case of carcinoma of prostate presenting as abdominal mass. *Acta Urol Jpn* **34**: 1811-1814, 1988
- 7) Akakura K, Akimoto S, Ueda T, et al.: Characteristics of advanced prostate cancer; comparison with early stage cancer. *Hinyoki Geka* **10**: 1-4, 1997
- 8) Akimoto S, Akakura K, Masai M, et al.: Changes of prostatic acid phosphatase, γ -seminoprotein and prostate specific antigen after endocrine therapy for stage D₂ prostate cancer. *Acta Urol Jpn* **36**: 783-791, 1990

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和文抄録

腹部腫瘍を主訴とした前立腺癌の1例

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80歳男性，腹部腫瘍を主訴に当院受診．右下腹部に
手拳大の硬い腫瘍が触知された．前立腺および腹部腫
瘍の針生検が施行され，病理学的診断は中分化型前立
腺癌であった．胸部レントゲン写真では多発性の肺転
移を認め，臨床診断は前立腺癌（cT3N3M1, stage

D2）であった．抗アンドロゲン療法開始から3カ月
目で血中 PSA 値は正常範囲内まで減少し，多発性肺
転移は11カ月目で消失した．約30カ月の経過観察で腹
部腫瘍はまだ認められるが，その大きさは治療前の
1/4 まで減少した．

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