CASE REPORT

10-year survival of a patient with metastatic prostate cancer: Case report and literature review

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Summary Prostate cancer is the most common malignancy in men. The 5-year relative survival for all stages combined is 98.8%. Patients diagnosed with metastatic prostate cancer have median survival from 2 to 3 years. We describe a case of 64-year old man who clinically presented with inguinal lymphadenopathy. Because of elevated PSA levels biopsy of prostate was done and adenocarcinoma was diagnosed. Biopsy of inguinal lymph nodes confirmed the diagnosis of prostate cancer. Hormonal treatment was started and at the most recent follow-up, 10 years later, the patient is asymptomatic with no clinical signs of disseminated disease.

KEY WORDS: Generalized lymphadenopathy; Prostate cancer: Survival: Treatment.

Submitted 1 February 2015, Accepted 31 March 2015

INTRODUCTION

Prostate cancer is the most common malignancy in men. The median age at diagnosis of prostate cancer is 68 years. Prostate cancer does not alter life expectancy for most of these men as the 5-year relative survival for all stages combined is 98.8%. Those who present with metastatic disease have a median survival of approximately 30 months, however a small proportion of men diagnosed with metastatic prostate cancer will live substantially longer. One of the rare presentations of metastatic prostate cancer are generalized lymphatic metastases (1). We report a case of prostate cancer patient who clinically manifested as generalized lymphadenopathy with concomitant minimal bone metastases and subsequent ten years follow up.

CASE REPORT

In March 2004, a 64-year-old male was referred to Clinical Hospital Center Rijeka for a constipation. The patient reported swelling of the left leg and suprapubic fullness. He denied any voiding difficulties. The patient’s past medical and surgical history were not contributory. Physical examination of the patient showed palpable suprapubic fullness, enlarged lymph nodes in left inguinal and left leg oedema. Digital rectal examination (DRE) revealed nodular induration in the lateral lobes of the prostate which partially occluded the rectum. PSA level was 152 ng/mL. Transrectal ultrasound (TRUS) showed prostatic enlargement with multiple hypoechogenic peripheral lesions. Chest X ray showed no pathological findings. Computed tomography (CT) of the abdomen and pelvis was remarkable for an enlarged retroperitoneal and inguinal lymph nodes with dislocation of the left ureter and bladder to the right side (Figure 1). Cystography showed bladder dislocated to the projection of the right iliac bone. The bone scan showed metastasis in the fifth thoracic vertebra. Transrectal biopsy of the prostate demonstrated adenocarcinoma (Gleason score 5+5, “signet ring”). Biopsy of the left inguinal lymph node also revealed adenocarcinoma with immunohistochemical staining that was strongly positive for PSA. The patient underwent castration and therapy was continued with flutamide. Afterwards, during time, his PSA level reached 0.16 ng/mL. In 2008, the patient was lost to follow-up. He was again referred to urology consultant in December 2012. The patient stated that he stopped talking medications in 2008, because of the adverse effects. His PSA level was 3.8 ng/mL and bicalutamide treatment was started. At the most recent check-up in September 2014, CT of the abdomen and pelvis showed no evidence of disease. His PSA level is 0.32 ng/mL and he is asymptomatic.

DISCUSSION

Despite advances in the treatment of prostate cancer, nearly 260,000 men worldwide will die from the disease this year, and the vast majority will have metastatic disease at the time of death. While in patients with metastatic prostate cancer median survival is approximately 30 months when treated with hormonal therapy, there is substantial inter patient variation. Why this disease has such a divergent response to hormonal therapy is a fundamental question of urologic oncology. Given the heterogeneity of prognoses in patients with metastatic prostate cancer, the ability to accurately predict survival is vital for optimal patient counseling, selection of treatments, clinical trial design, and interpretation of clinical data. Over the past 20 years, several prognostic models have been developed in an attempt to refine the clinician’s predictive ability. Glass et al. through their clinical data analysis identified

No conflict of interest declared.

Archivio Italiano di Urologia e Andrologia 2015, 87, 3
four prognostic factors which have a major impact on outcome of metastatic prostate cancer patients (2).
Namely those are appendicular versus axial disease, performance status 0 versus 1 to 3, PSA less than 65 versus
65 ng/ml or greater and Gleason score less than 8 versus
8 or greater. Using these criteria three prognostic groups
can be made, including a good, intermediate and poor
group. For example, estimation of five-year survival in
the poor prognostic group is only 9%. Authors concluded
that risk stratification according to these factors is
helpful for individual patient treatment.
The EORTC conducted two randomized phase III trials
(trial 30,843 and trial 30,853) of maximal androgen
blockade in 695 patients with metastatic prostate cancer.
These trials showed discrepancy of results according to
overall survival of treated patients. In order to determine
whether differences in patient characteristics could
explain these possibly contradictory results, Sylvester at
al used a statistical model to identify prognostic factors
for survival. Their model revealed six prognostic factors
such as alkaline phosphatase, hemoglobin, performance
status, pain score, T category and G grade. By using these
factors patients can be divided into two risk groups
(good or poor prognosis with 3.5 and 1.75 years' med-
ian survival, respectively). In conclusion, authors under-
line the importance of taking into account patient char-
acteristics when treatment strategy is planned.
Montgomery study revealed higher body mass index to
be associated with better overall and progression-free survival in patients with androgen dependent metastatic
prostate cancer. The question remains what is real clin-
ical application of these study-results in every day clinical
setting. On example of our case-presentation it is possi-
ble to see that the same patient would be grouped differ-
ently according to different authors. For example, Glass
criteria would group the presented patient in poor prog-
nostic group whereas Sylvester model would group him
in good prognosis group.
On the other hand one of the peculiarities of this case is
clinical presentation. Although many cases have been
reported of prostate cancer metastasizing to inguinal
nodes many years after diagnosis only one case has been
reported in which inguinal lymphadenopathy was the
presenting sign (3). The patient presented here had not
undergone any previous local surgery that might have
distorted the lymphatic drainage of the prostate.

Figure 1. 
CT of the abdomen showing enlarged retroperitoneal lymphnodes.

One possible explanation of such metastasis is that he
might have had some aberrant lymphatic drainage of the
prostate. Uncommon routes of pelvic lymphatic drainage
that have been reported include the gonadal vessels,
mesenteric and mesocolic nodes, posterior iliac crest
nodes and inferior phrenic nodes. As prostate cancer
specific mortality has fallen to low levels for many men
prostate cancer is a chronic disease. Survivorship
research has defined many risks and factors unique to
this population but further work to identify novel prog-
nostic markers is needed. Current efforts to better classi-
fy the molecular phenotypes of metastatic clones of cells
may provide essential information in predicting the clin-
ical behaviour of the disease.

REFERENCES