



ORIGINAL RESEARCH PAPER

General Medicine

AN UNUSUAL PRESENTATION OF ADVANCED PROSTATIC CARCINOMA.

KEY WORDS:

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ABSTRACT

A 68 years old known diabetic, hypertensive & Chronic obstructive pulmonary disease (COPD) patient presented with complaint of Cough with expectoration for 5 days, fever for 2 days & shortness of breath for 2 days. After routine investigations patient was diagnosed to have Acute exacerbation of COPD due to lower respiratory tract infection & was about to be discharged. But before discharge he complained of Right upper abdominal discomfort for which USG whole abdomen was performed which revealed a Space occupying lesion (SOL) in liver and prostatomegaly. After thorough evaluation for hepatic SOL patient was found to have advanced prostatic adenocarcinoma with metastasis but with normal serum Prostate-specific antigen (PSA) level and treatment was started.

INTRODUCTION:

The Prostate is located in the pelvis and is surrounded by the rectum, the bladder, the periprostatic & dorsal vein complexes, neurovascular bundles and the urinary sphincter. Incidence of prostatic malignancies increases with age. The high prevalence of prostate cancer among the elderly, who often have competing causes of morbidity & mortality, mandates a risk-adapted approach to diagnosis & treatment. Although 1 in 6 men will eventually be diagnosed with prostate cancer, and the disease remains the second leading cause of cancer deaths in men, only 1 man in 30 with prostate cancer will die of his disease.¹ Prostate cancer usually presents with symptoms of bladder outlet obstruction and/or bone pain due to bony metastasis. PSA is a kallikrein-related serine protease, produced by prostatic epithelial cells, that causes liquefaction of seminal coagulum. PSA testing was approved by the U.S. Food and Drug Administration (FDA) in 1994 for early detection of prostate cancer, and the widespread use of the test has played a significant role in the proportion of men diagnosed with early-stage cancer.^{2,3} The level of PSA in blood is strongly associated with the risk and outcome of prostate cancer.¹ But Prostate cancer may present with atypical symptoms and even in advanced metastatic disease PSA may be normal.

Case Report: A 68 years old gentleman, who is a known case of COPD, Hypertension, and Type2 Diabetes Mellitus, was admitted to the medicine department of Tata Main Hospital, Jamshedpur on 26/2/2020 with complaint of 1)Cough with expectoration for 5 days, 2)Fever for 2 days, and 3) Shortness of breath for 2 days.

On examination, patient was conscious, oriented and afebrile, BP: 150/90 mm Hg, Pulse- 90bpm, SpO₂- 98% on room air, Chest: Bilateral Wheeze present, Abdomen : soft, but mild tenderness in left hypochondrium.

Investigations revealed - Hb-9.6g/dl, TLC- 8200(N-88,L-6,M-4,E-1,B-1), Platelets- 155000/cmm; S. creatinine, S-electrolytes & LFT- Within normal limits. CXR PA view- Prominent bronchovascular markings. So Patient was diagnosed to have Acute Exacerbation Of COPD with T2 DM & HTN. He was treated with i.v. antibiotics, Pantoprazole, Paracetamol, bronchodilators, Insulin & antihypertensives. His condition improved, fever and pain subsided and cough & shortness of breath disappeared with above therapies. He was about to be discharged when he complained of right upper abdominal discomfort for which USG whole abdomen was done. USG whole abdomen revealed- 1) Hepatomegaly with Right Lobe liver SOL & para caval lymphadenopathy. 2) Enlarged prostate with secondary changes in urinary bladder with significant Post void residue. To evaluate for Liver SOL, Biopsy of Liver SOL, Colonoscopy, CECT abdomen, Blood for tumor markers (PSA, CEA, AFP, CA 19.9) were performed.

Core biopsy from liver mass showed poorly differentiated carcinoma (metastatic adenocarcinoma/ neuroendocrine carcinoma).

Colonoscopy: Grade II internal haemorrhoids.

CECT abdomen & pelvis showed:

1. Prostatomegaly with asymmetrical bulge and heterogeneous enhancement on left side with likely involvement of left seminal vesicle and rectum? malignancy
2. Hepatic hypoenhancing mass lesion? Metastasis
3. Periportal, retropancreatic and left obturator lymphadenopathy? Metastasis
4. Lytic area in sacrum? Metastasis.

Assay of tumour markers showed: **PSA-2.88ng/ml**, CA19.9-22.3 (N <37)U/ml, **CEA- 84.53**(N <5) ng/ml, AFP-3.65 (N: 0.0-1.0)ng/ml, **Chromogranin A-191.20**(N <76.30)ng/ml, 24 hours urinary 5-HIAA-3.12 (N:2.00-8.00)mg/24hrs.

¹⁸F-FDG PET CT Study was performed which showed **-Metabolically active B/L lung nodules, liver lesion**, abdominopelvic lymph nodes, skeletal lesions-likely metastatic

-Ill defined faint FDG avid heterogenous lesion in left peripheral zone of prostate and left seminal vesicles-**suspicious for primary neoplastic pathology.**

-No other hyper metabolic lesion in rest of the body.

Immunohistochemistry of biopsy specimen from liver SOL showed features consistent with metastatic prostate adenocarcinoma.

To confirm the diagnosis, prostate biopsy was done which revealed poorly differentiated acinar adenocarcinoma prostate, Gleason's score 9, Grade Group 5. Medical oncologist's opinion was taken. Bilateral orchidectomy was performed by urosurgeon and chemotherapy was started.

DISCUSSION:

Prostate cancer remains the 2nd leading cause of cancer death in men. The absolute number of prostate cancer deaths has decreased in the past 2 decades, attributed by some to the widespread use of PSA-based detection strategies.^{2,3} But PSA is prostate-specific, not prostate cancer-specific. Serum PSA level may increase from prostatitis & Benign Prostatic Hypertrophy. Performance of a cystoscopy or prostate biopsy can increase PSA levels up to tenfold for 8-10 weeks.¹ In a study of men with PSA < 4 ng/ml & normal digital rectal examination, 15 percent had a prostate cancer on the end-of-study biopsy, and of these cancers, 15 percent were high grade (a Gleason score of 7 to 9).⁴ This case is an example of advanced prostatic adenocarcinoma with metastasis presenting with normal PSA level. Though PSA was normal,

CEA and Chromogranin A were raised in this case. This is an important finding because whether other tumour markers like CEA, CA19-9, AFP, Chromogranin A etc can be useful in diagnosing & monitoring the response of therapy in prostate cancer with normal PSA level is a subject of further larger studies.⁵ This case is also atypical because it presented with cough, fever & breathlessness and the first diagnostic clue was hepatic SOL. Usually prostate cancers present with symptoms of bladder outlet obstruction and bone pain due to sclerotic bone metastasis. But prostate cancer can also present with fever, cough & breathlessness.⁶ It often results in liver metastasis and it may also cause osteolytic skeletal lesions.^{1,5}

CONCLUSION:

This was a case of advanced prostate cancer with distant metastasis presenting with cough, fever & shortness breath and patient was diagnosed to have adenocarcinoma prostate while evaluating for an incidentally detected liver SOL. He had normal serum PSA level. So normal serum PSA level does not rule out prostate cancer & advanced metastatic prostate cancer may have normal serum PSA level.

Affiliations:

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