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Letter to Editor

Internal Medicine Section

# Malignant Ascites due to Prostatic Adenocarcinoma: An Extremely Rare Manifestation of a Common Disease

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Dear Editor,

Prostate cancer, a predominant tumor among elderly men, is associated with prolonged survival even after distant metastases. Survival of the patients is related to the tumor staging and grading, patients' age as well as any other possible co-morbidities [1]. Despite the fact that generalized neoplastic disease is thought to be incurable, the relative five-year survival rate for regional stage prostate cancer is nearly 100% and the relative five-year survival rate for distant stage prostate cancer is about 28% [2]. Bone and lymph node metastases are considered to be very common in prostate cancer but only a few cases of peritoneal metastases and malignant ascites have been reported [3]. We confronted a 69-year-old male with congestive heart failure, coronary artery disease and prostate cancer. He had been diagnosed with prostatic adenocarcinoma (Gleason score 5+4=9) with a sole bone metastasis (seen on bone scintigraphy) since 2013. He had been treated with radiation therapy as well as hormonotherapy with Bicalutamide and Triptorelin. The patient was admitted to the emergency department of our hospital because of dyspnea and abdominal fullness. Physical examination revealed distended abdomen with shifting dullness. Abdominal ultrasound showed ascites but no evidence of cirrhosis while chest X-ray showed an enlarged cardiac silhouette and blunting of both costodiaphragmatic angles. Laboratory tests revealed anemia (Haemoglobin 11g/dL, Mean corpuscular volume 96fl, Mean corpuscular Haemoglobin 28pg), elevated erythrocyte sedimentation rate (95mm/h), slightly elevated liver enzymes (Aspartate transaminase 45U/L, Alanine transaminase 50U/L), borderline serum creatinine (1.3mg/dL) and high serum prostate-specific antigen (PSA) (16ng/mL). A whole-body Computed Tomography (CT) scan did not detect new metastases or other masses, while the other tumor markers (Ca 19-9, Alpha-fetoprotein, Carcinoembryonic antigen) were negative. A diagnostic and therapeutic abdominal paracentesis was performed. The serum-ascites-albumin-gradient was <1.1 but the cytological analysis did not manage to detect malignant cells. The nature of the ascites was a question that had to be answered because therapeutic strategies as well as prognosis were strongly related to it. In this context, Prostate Specific Antigen (PSA) was measured in the ascitic fluid and the extremely high levels (>1000ng/mL) strongly suggested its malignant origin. Supportive care was advised by the oncologists and the patient was hospitalized for seven days. Three weeks after discharge he died from acute pulmonary edema. In conclusion, the development of secondary ascites due to prostate cancer (as an initial manifestation or recurrent disease), is not well known and many clinicians are unfamiliar with it, as only 17 cases of malignant ascites due to prostatic adenocarcinoma have been reported since 1968 [1,4]. Despite the fact that ascitic fluid PSA measurement is not an everyday practice in General Hospitals, there are reports that it can serve as a valuable adjunctive study for solving problems concerning differential diagnosis [1,5]. Therefore, we suggest that further studies should be performed in order to evaluate whether measurement of tumor markers in effusions could decisively contribute to the differential diagnosis, the prediction and possibly the follow-up of certain malignancies.

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