Case Report

Small Cell Carcinoma of Prostate: Case study and review of the literature

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Abstract

Small cell carcinoma(SCC) of prostate is a rarely seen aggressive tumor. Generally, SCC of the prostate is symptomatic at diagnosis unlike adenocarcinoma. In our study, 81 year-old male patient was admitted to our clinic with obstructive symptoms and dysuria. Transurethral resection of prostate was performed for the patient due to the obstructive symptoms. The pathology result was; small cell carcinoma of prostate. The patient was consulted to medical oncology for chemotherapy. There is still no standard treatment for this pathologic entity.

Keywords:
Carcinoma; Prostate; Small cell

Introduction

Small cell carcinoma(SCC) of prostate is a rarely seen aggressive tumor [1,2]. It accounts for 0.5-2% of all prostate cancers.[3] SCC usually originates from lung but sometimes it may originate from different sites outside the lung that is called extrapulmonary small cell carcinoma [4]. Generally, small cell carcinoma of the prostate is symptomatic at diagnosis unlike adenocarcinoma [3]. Usually there are obstructive, neurologic symptoms and also symptoms related with paraneoplastic syndroms or metastasis would be seen [1,3,5]. In this study we aimed to present the case with small cell carcinoma of prostate, the treatment and follow-up results of the patient.

Case

81 year-old male patient was admitted to our clinic with obstructive symptoms and dysuria. The patient didn’t benefit from the alpha-blocker treatment and according to the uroflowmetry result, maximum flow rate was 9.5 ml/sn, average flow rate was 5.1 ml/sn. According to the ultrasonography result, prostate was 55 gr, upper urinary tract was normal. Total PSA level was 0.4 ng/ml. Digital rectal examination revealed average-size prostate and wide-spread nodules for both lobes. Transurethral resection of prostate was performed for the patient due to the obstructive symptoms. The pathology result was; small cell carcinoma of prostate. The patient was consulted to medical oncology for chemotherapy. There is still no standard treatment for this pathologic entity.
revealed involvements in prostate gland, bladder and rectum compatible with the invasion of primary pathologic focus, involvements in bilateral internal iliac, bilateral common iliac, presacral, paraaortic and right external iliac lymph nodes and in liver, surrenal glands, bone tissue compatible with metastasis. (Figure 3) Bone scan revealed metastatic involvements in left 8-10 costovertebral junctions, 1st and 11th costa, 9th vertebral. After the examinations, the patient was consulted to medical oncology for chemoterapy.

Discussion

Prostate is one of the most extrapulmonary site of small cell carcinoma [6]. Small cell carcinoma of prostate is poor-prognosis tumor prone to early systemic metastasis and mostly diagnosed at advanced stage [7]. Most of the patients are in advanced stage when they are diagnosed [7]. Some cases were reported to be diagnosed as ‘Gleason pattern 5’ in the literature [6-8]. In some cases symptoms related with ACTH production were reported [5,9]. Also KIT, pan-cytokeratin, p53, Ki-67, PSA(prostate specific antigen), alpha-methylacyl-CoA racemase and PDGFRA(platelet-derived growth factor-a) gene mutations were reported for some cases [10,11]. Neuron-specific enolase(NSE) levels would be elevated of the patients [12]. PSA levels are lower and in normal range for most of the patients [3,5,13]. Computerised tomography(CT) and positron emission tomography (PET) would be used for imaging [5]. During the histopathologic examination, argentaffin or argyrophil cells would be seen [9]. The classic morphology is ‘oat cell’ morphology [14]. Urogenital small cell carcinomas are usually high grade and poor differentiation [4]. They have poor prognosis and survival is less than 1 year for most of the cases [4]. There is no standart treatment for now [12]. Chemotherapy and radiotherapy would be used for treatment. Cisplatin and etoposide are common recommended chemotherapeutics and sometimes doxorubicin would be added [3,15]. Extrapulmonary small cell carcinomas are less chemosensitive than pulmonary small cell carcinomas [4]. Successful treatments were reported in the literature. Also for local disease radiotherapy would be used for treatment. In our study, patient was diagnosed as small cell carcinoma with multiple metastases and after the diagnosis the patient was consulted to medical oncology for chemotherapy.

References