Prostat Kanseri Duodenum Metastazı: Nadir Olgu Sunumu

Duodenum Metastasıs of Prostate Cancer: A Rare Case Presentatıon

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ÖZET

Prostat kanseri erkeklerde çok sık görülen bir kanserdir. En sık metastaz yerleri lenf nodu ve kemiklerdir. Ancak uzun sağ kalım süresi olan hastalarda nadir olarak hipofiz, larinks ve cilt tutulumu da olabilmektedir. Gastrointestinal sistem tutulumları da ancak vaka sunumu şeklinde literatürde bildirilmiştir. Duodenum metastazı, 2014 yılına kadar 3 vakada bildirilmiştir. Biz de yaygın kemik metastatik olan bir hastada gelişen izole duodenum metastazlı hastayı sunmayı amaçladık.
Anahtar Kelimeler: Anahtar Kelimeler: Prostat kanseri, Metastaz, Duodenum.

ABSTRACT

Prostate cancer is the most common cancer in males. The most common metastatic regions for prostate cancer are the lymph nodes and bone. Unexpected metastasis sites, such as the pituitary gland, larynx, and skin, have been reported which is associated with long survival. Gastrointestinal system involvement has been also reported as case presentations. Until 2014, duodenum metastasis was reported in three patients. Herein, we aimed to present a patient who had widespread bone metastasis, as well as isolated duodenum metastasis at diagnosis.
Keywords: Prostat cancer, Metastasis, Duodenum

Introductıon

Prostate cancer is the most common cancer in males. In the US, it is estimated that there will be 233,000 new diagnoses, and approximately 29,480 mortalities in 2014 (1). According to the 2009 cancer statistics in Turkey, it is the second most common cancer after lung cancer. It has an incidence of 36.1/100,000 (2).

Twenty percent of the patients are metastatic at diagnosis. The most common metastatic regions for prostate cancer are the lymph nodes and bone (3). Unexpected metastasis sites, such as the pituitary gland, larynx, and skin, have been reported in advanced stages of the metastatic disease, which is associated with long survival (3-7). Gastrointestinal system (GIS) involvement has been also reported as case presentations (8-13). Until 2014, duodenum metastasis was reported in three patients (14). Herein, we aimed to present a patient who had widespread bone metastasis, as well as isolated duodenum metastasis at diagnosis.

Case Report

A 62-year-old male patient was admitted with pain in his right leg. The physical examination revealed that the patient had an Eastern Cooperative Oncology Group (ECOG) performance score of 2, and had limited and painful movement in his right leg. Other system examinations were normal. Magnetic resonance imaging of right hip showed a lesion mass, with an approximate diameter of 6.5x7.5 cm in the right superior acetabulum and in the iliac bone. Bone scintigraphy showed activity involvement that was associated with widespread bone metastasis in bilateral costa bilateral iliac bone, right sacroiliac area, right acetabulum, and the femoral head. Thorax computerized tomography (CT) showed mediastinal and right hilar lymphadenopathies (LAP), the largest being 26 mm in size, and lesions destructing the right seventh and ninth costa. Abdominal CT showed wall thickening (approximately 20 mm) on the level of the stomach fundus, and 14 mm paraceliac LAP,

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while the prostate gland was 50x38 mm, and had a homogenous structure.

The biopsy of the expansile mass in the left seventh costa showed fibrous stromal cords and a tumor consisting of small groups and having local contusion artefacts. Tumor consisted of atypical epithelial cells with hyperchromatic nuclei, narrow cytoplasm, and high mitotic activity. Tumor cells were infiltrated in the bone tissue in a certain area. Immunohistochemical (IHC) staining for CK, CK7, PSA, and NSE (focal) showed positive staining, whereas LCA, synaptophysin, chromogranin, TTF-1, PSMA, CDX2, and CK20 were negative. Histomorphological and IHC studies were consistent with prostate carcinoma metastasis (Fig. 1). Total PSA level was 3.9 ng/ml, and total testosterone level was 129 ng/ml.

Endoscopy was planned as the patient had decreased oral feeding, and complaints of nausea. Upper GIS endoscopy showed erosive gastritis, gastritis and duodenal ulcers, and narrow pylor canal. The gastric biopsy had benign features. Duodenum biopsy showed tumor tissue consisting of atypical epithelial cells; these cells had a monotonous appearance, hyperchromatic nuclei, narrow cytoplasm, and were highly mitotic. The tumor comprised the lamina propria, muscularis mucosa, and submucosal areas, and caused local erosions; it was mostly solid, had defined boundaries, and caused local infiltrations in the form of irregular solid islands. The Ki-67 proliferation index was 40%, and local lymphovascular tumor embolism was observed. The IHC staining of the duodenum sections showed positive staining for NSE, CK7 (faint), and PSA (focal, faint). On the other hand, sections stained negative for CK20, PSMA, synaptophysin, chromogranin, CD56, and TTF-1 (Fig. 2). The tumor had similar morphological and IHC features to the specimen that was collected from the costa, and was interpreted as prostate cancer. A prostate biopsy was planned, but the patient refused. Due to local pain, 10x300 cGy palliative radiotherapy was administered to the sacroiliac region. The patient was started on a treatment regime involving leuprolide (a LHRH agonist; 11.25 mg; every three months), and zolendronic acid (intravenous; every 28 days).

Figure 1a. Metastatic tumor islands neighbouring bone lamel, Hematoxylin-Eosin x 200

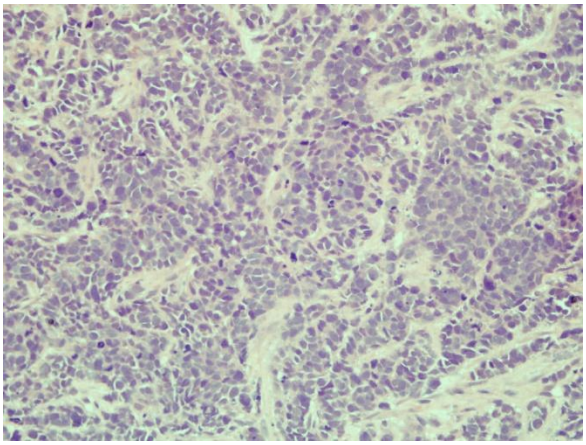

Figure 1 b. Tumoral tissue consisting of aytpical epithelial cell islands

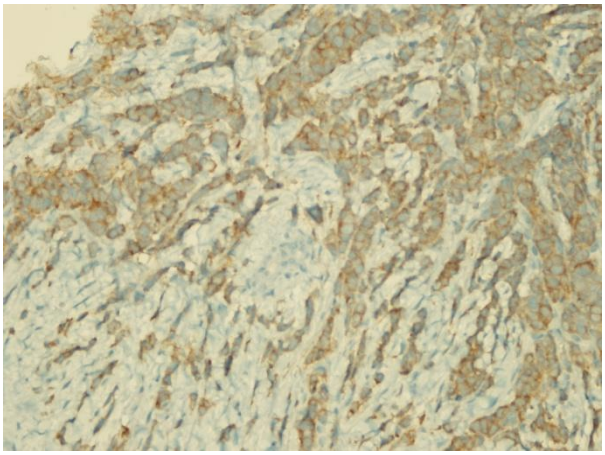

Figure 1c. Immunohistochemical staining of PSA in tumor cells, PSA-IHC x400

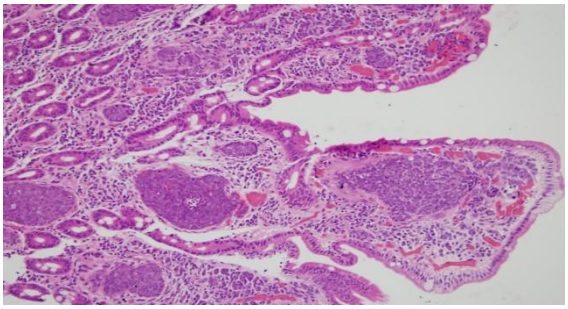

Figure 2a. Metastatic tumor islands in duodenum lamina propria, Hematoxylin-Eosin x 200.

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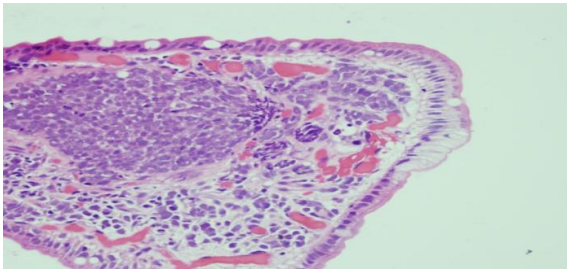

Figure 2b. Tumor tissue with villus structure, and epithelial character, Hematoxylin-Eosin x 400

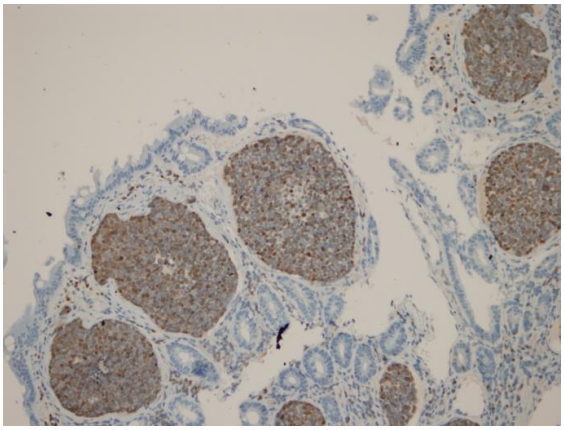

Figure 2c. Immunohistochemical staining of PSA in tumor cells, PSA-IHC x200

Dıscussıon

Prostate cancer metastasizes most frequently to the lymph nodes and bone, but is also capable of metastasizing to almost all parts of the body, including parotis gland and skin (4-7). According to an autopsy study on 191 prostate cancer patients in 2008, the most frequent metastasis sites are neighboring lymph nodes (26.2%), bone (19.7%), distant lymph nodes (18.4%), lungs (12.8%), and the liver (7.8%) (3). GIS involvement in prostate cancer is a rare event (8-13). In many cases, GIS metastases are detected during tumor recurrence. Rectum involvement usually occurs via neighborhood (13). Contrary to the literature, a study in 2004 showed that 2 of 30 patients with prostate cancer had small intestine metastasis (9).

The frequency of metastasis to the duodenum is highest in lung cancer, renal cell carcinoma, malignant melanoma, and breast cancer (14). There are a limited number of case reports of duodenum metastasis in prostate cancer. Duodenum metastasis was reported in three patients between 1966 and 2014 (14). The diagnosis of duodenum metastases can be challenging. They can appear in various forms, including a lesion in the small intestine, a mucosal defect, or invagination (9). They are mostly asymptomatic, while symptomatic cases share certain symptoms, including abdominal pain, nausea, vomiting, and gastrointestinal bleeding. The clinical symptoms are nonspecific, and since the symptoms are associated with chemotherapy and radiotherapy side effects, or liver metastasis, the diagnosis is usually omitted or delayed (15).

Conclusıon

In conclusion, our patient with metastatic prostate cancer who had duodenum metastasis is a rare example, and is especially important due to the detection of duodenum metastasis at diagnosis, and normal PSA level.

Conflict of interest statement

None declared.

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