Case Report

An Unusual Metastasis of Prostate Cancer to Duodenum

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Abstract
Prostate cancer is the second most common cancer in men in the world. The presentation of this cancer may range from microscopic to metastatic forms. Patients with prostate cancer may experience metastasis to the gastrointestinal system. Here, we present a case of prostate cancer metastasizing to the third portion of duodenum, a very uncommon site of metastasis. To the best of authors’ knowledge, this is the first case report in the literature.

Key Words: Prostate cancer. Metastasis. Duodenum.

Introduction
Prostate cancer is the second most common cancer in men in the world.¹ The presentation of this cancer may range from microscopic to metastatic forms. Most common sites of metastasis are bone, lymph nodes, liver and lung.² In the literature, some metastatic sites are reported rarely like skin, pituitary gland and ceacum.³⁻⁵ Here, we present a case of prostate cancer metastasis to the third portion of duodenum, which is a very rare site of metastasis.

Case Report
A 74-year man with the history of diabetes mellitus (DM), chronic liver disease (CLD) since 2012, and metastatic prostate cancer (bone metastasis) diagnosed in 2014, was referred to gastroenterology clinic with the complaints of abdominal pain, nausea, vomiting and seizures. Patient was taking tamsulosin, furosemide, amlodipine, insulin lispro injection, and goserelin acetate. On physical examination, epigastric tenderness was detected but no rebound or rigidity was found. His hemoglobin was 9.6 g/dl, serum prostate specific antigen (PSA) was 21.7 ng/ml and creatinine was 2.6 mg/dl. Abdominal imaging was performed, which detected metastasis to lymph nodes and spine bones. Due to persistent nausea and vomiting and positivity for occult blood in stool, upper gastrointestinal endoscopy and colonoscopy were performed (Figure 1). No lesion was detected on colonoscopy but on upper gastrointestinal endoscopy, the mucosa of third part of the duodenum was fragile and edematous. Lumen was stenotic and multiple biopsies were taken from the stenotic area. Histopathological examination of endoscopic biopsies showed an infiltration of the neoplastic cells with eosinophilic macronucleoli and irregular glandular arrangement (Figures 2 and 3). Immunohistochemically, the neoplastic cells were positive for cytoplasmic PSA (Figure 4). The pathologic findings supported a diagnosis of duodenal metastasis of metastatic prostatic adenocarcinoma. Abiraterone was started for the treatment of metastatic prostate cancer.

Discussion
Prostate cancer is the second most common cancer in men worldwide. In the United States, there will be an estimated 181,000 cases and 26,100 deaths in 2016.⁶ The prognosis in patients with prostate cancer is generally favourable, but sometimes metastasis to the other sites of the body may occur. Regional lymph nodes, bone, liver, lung, and distant lymph nodes are...
common sites of metastasis. However, in the literature, only 3 cases of duodenal metastasis from prostate cancer have been previously reported. In all of them, the metastatic tumor was located in the second part of duodenum. In our patient, metastatic site was the third part of the duodenum; and to the best of our knowledge, it is the first case in the literature.

In addition, metastases to duodenum are a rare entity and diagnosis may be difficult. The most commonly reported primary malignancies in the literature to result in duodenal metastases are lung, breast cancer and renal cell carcinoma. Our patient had some complaints related to gastrointestinal system. He had abdominal pain, nausea and vomiting, so we decided to perform upper gastrointestinal endoscopy. We found prostate cancer metastasis to duodenum. After the diagnosis, we changed the treatment of the patient.

In conclusion, we have reported an unusual case of a patient with metastatic duodenal tumor caused by primary prostate cancer; and we should be careful about the possibility of gastrointestinal system metastasis in patients with prostate cancer.

REFERENCES


