Case report:

A Very Rare Case Report of Sigmoid Adenocarcinoma with Involvement of the Bladder at the time of initial diagnosis

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Abstract:

In nephro-urologic field, extent of approach to causes of lower urinary tract complaints in fourth decade or more of life is challenging matter. Physicians must notice to alarm signs in diagnosis of patients to prevent misdiagnosis of important causes. in practice, combination of hematuria and constipation accompany weight loss are red flags. Bladder neoplasm is a malignant cause of above symptoms that sometime originate from neighboring organ. Bladder metastases are very rare in colorectal cancers (CRC). Symptoms of primary tumor may be precede or coincide with urinary symptoms. The present study describes an unusual case of symptomatic bladder involvement from sigmoid adenocarcinoma. A 68-year-old man with complaints of dysuria, frequency, microscopic-hematuria, nausea, vomiting, and abdominal pain was diagnosed as adenocarcinoma of sigmoid colon metastatic to the bladder. This case underlined the need to prompt and careful attention to patients with hematuria-dysuria in adult age.

Keywords: Colorectal cancer; bladder metastasis; dysuria

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Introduction

Bladder cancer is the most common malignancy involving the urinary system and the ninth most common malignancy worldwide[1].Based a study, bladder cancer accounts for 7.04% of all cancers in Iran[2].

Most common types of bladder cancer are primary uroepithelial carcinomas that account more than 90% of all cancers. in rare cases, the urinary bladder may be involved by direct extension of tumors from adjacent sites or by metastases from a distant site[3].

Direct extension of cancer into the bladder can originate from the colon, rectum, prostate, or uterus. The most common cancers which metastasize to the bladder are melanoma and lymphoma. Other common primary sites include the stomach, breast, kidney, lung and pancreas[4].

Hematuria is the presenting symptom in 85–90% of patients with bladder cancer. It may be gross or microscopic, intermittent rather than constant. In a smaller percentage of patients, it is accompanied by symptoms of vesical irritability: frequency, urgency, and dysuria. Irritable bladder symptoms seem to be more common in patients with diffuse carcinoma in situ (CIS).

On the other hand, colorectal cancer (CRC) is the third most common malignancy in men and the fourth leading cause of mortality worldwide[5].Metastatic colorectal carcinoma represents the major cause of cancer-related mortality.

Approximately 25% of patients have metastases at the time of the initial diagnosis of CRC, and almost

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50% of patients will develop metastatic colorectal cancer (mCRC).In mCRC patients, metastatic dissemination is usually restricted to a single area, and the most commonly involved organsare liver and lungs. However, sporadic cases of invasion to other organs, such as breast and thyroid gland have been reported in literature. Bladder metastasis of mCRC, has been considered extremely rare[6].

Case presentation

A 68-year-old man admitted to our hospital with the complaint of dysuria, frequency but no gross hematuria started about two months ago. He had a two-month history of, reduction in appetite, nausea, vomiting, constipation and weight loss. In addition, patient's hypogastric pain was started about two months ago, which was a persistent pain and radiated to back without any variation with position or dietary intake.

On examination, the patient was sick-looking, wasted and febrile. his Temperature was 38.2^{oc}, with a blood pressure of 110/70 mm Hg, respiratory rate of 22/min, and pulse of 98/min. Physical examination revealed tenderness in the hypogastrium. Initial laboratory evaluation yielded the following: hemoglobin, 11.8 g/dl; white blood cell count, 16.3 $\times 10^3/\mu l$; platelets, 196 $\times$ $10^3/\mu l$; sodium, 143 meq/l; potassium, 3.5 meq/l; fasting glucose, 111 mg/dl; Creatinine, 1.12 mg/dl; and blood urea nitrogen, 13 mg/dl. The urine was turbid. Urinalysis showed 2+ proteins, 1+ blood, 10-12 RBC/HPF, many WBC, and few bacteria. Urine culture was positive for Klebsiella pneumoniae. Although, due to resistant urinary tract infection; patients had received 2 courses of antibiotic treatment. There was no family history of malignancy. Moreover, the examination of his other systems was otherwise negative, and he was previously healthy. The patient had more than 20packsyears of cigarettes smoking.

An abdominal ultrasound was performed, which revealed a mass-like wall thickening of the sigmoid colon extending into the posterior part of the bladder, measuring 83×43 mm.

Further investigation with computed tomography (CT) scan demonstrated a relatively large air-containing mass of 88×68 mm in sigmoid colon with surrounding fat stranding. The thickened wall of the recto sigmoid was noted. The mass also adhered to the anterior bladder wall. The anterior bladder wall thickness was increased, and there were some gases in the lumen of the bladder (Figure 1).

Figure1. CT images depicted a mass with surrounding fat stranding, measuring 88×68 mm extending toward the anterior bladder wall.

In diagnostic cystoscopy, massive necrotic lesion in bladder wall was documented .The patient underwent acolonoscopy. Colonoscopy showed a mass starting at 30 cm from anal verge affecting the sigmoid colon with marked luminal narrowing, and also a 2×2 cm polypoid lesion in the rectum at 3 cm from dentate line, (biopsy was done).

Blood analysis showed CEA (carcinoembryonic antigen) serum level was elevated at 2000 IU/ml.

Biopsy results of the sigmoid mass were consistent with well differentiated adenocarcinoma of the sigmoid colon, and the rectal mass was a tubulo-villous adenoma with low-grade dysplasia (Figure 2).

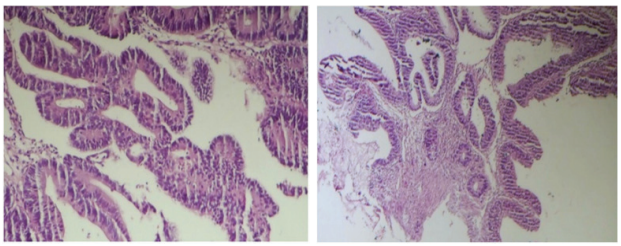

Figure2.Histopathologic examination of the mass biopsy showing a well differentiated adenocarcinoma of the sigmoid colon.

Surgery was done for patient. An adhesion mass lesion was documented in rectum with spreading to pelvic wall, originated from recto-sigmoid area. Diffusenecros is of bladder wall with a fistula was seen.

Discussion

Adenocarcinoma is an unusual malignancy of the urinary bladder, representing approximately 0.5-2% of all primary bladder malignancies[7].Bladder adenocarcinoma often results from direct metastatic invasion of a tumor from an organ next to the bladder, most commonly prostate, colorectal, or cervical carcinomas. CRC rarely metastasizes to the bladder.

Prior cases of bladder metastases occurred in the first couple of years after primary CRC diagnosis[8]. The present report documents a rare case of bladder metastases from CRC at the time of initial diagnosis. In fact, this case is unusual in that the patient presented with a symptomatic secondary deposit along with primary lesion symptoms.

Metastatic dissemination to uncommon sites usually is observed in patients with the terminal phase of the neoplastic disease. However, we presented here a case of metastatic sigmoid adenocarcinoma to an unusual site of metastasis during the early phase of the disease.

Hematuria(especially gross), is the most common symptom of primary adenocarcinoma of the bladder, but some patients may present with bladder irritation symptoms and resistant UTI. There is no consensus about screening of bladder cancer,but high risk patients with hematuria must be evaluated for malignancy[9].

The patient never had gross hematuria. This report was consistent with the results from previous studies, that gross hematuria was rarely noted in patients with metastatic bladder tumors[10].

Conclusion

This presentation underlined the need to further evaluation of take cognizance of unusual sites of metastasis from outer origin during initial diagnosis of bladder lesions.On the other hand; because of aging risk for urological malignancy, microscopic hematuria in patients more than 45-50 years-old must be noted. Anyone, over 40 years old which complaints of lower urinary disease symptoms or signs should have a complete evaluation of the kidneys, ureters, bladder, and urethra.

Ethical clearance: Ethical approval has been taken.

Conflict of interest statement

The authors have no conflict of interest to declare.

Author Contributions

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