



Coexistence Between Hodgkin's Lymphoma and Renal Cell Cancer: Case Report

Hodgkin Lenfoma - Renal Hücreli Kanser Birlikteliği: Olgu Sunumu

Mustafa Karabıçak, Hakan Türk, Özgür Çakmak, Cemal Selçuk Işoğlu, Hüseyin Tarhan, Ferruh Zorlu

Tepecik Training and Research Hospital, Clinic of Urology, İzmir, Turkey

ABSTRACT

Renal cell cancer (RCC) is the most common kidney tumor and accounts for 3% of all adult cancers. Hodgkin's lymphoma (HL) is also constitutes less than 1% of all malignancies with the male predominance. The risk of secondary cancer increases during the treatment period of HL in 15 years of follow-up. We presented a case indicating co-occurrence between HL and RCC and literature review about this rare coincidence.

Key words

Hodgkin's lymphoma (HL), Non-hodgkin's lymphoma (NHL), renal cell cancer

ÖZET

Renal Hücreli Kanser (RHK) en sık görülen böbrek tümörü olup yetişkinlerde görülen malignitelerin yaklaşık %3'ünü oluşturur. Hodgkin lenfoma (HL) tüm kanserlerin %1' inden daha az görülmekte olup erkeklerde görülme sıklığı daha fazladır. HL tedavisi alan hastalarda 15 yıl takip süresi sonunda ikincil solid kanser görülme oranında artış görülmektedir. Bu çalışmamızda eşzamanlı olarak böbrek tümörü ve Hodgkin lenfoma birlikteliği gösteren bir olguyu literatür bilgileri eşliğinde inceledik.

Anahtar Kelimeler

Hodgkin lenfoma (HL), nonhodgkin lenfoma (NHL), renal hücreli kanser (RHK)

Introduction

RCC is the most common type of kidney cancer and accounts for 3% of all adult cancers with the male predominance. In recent decades the incidence of RCC has been rising due to widespread using of imaging methods and also appears to be increased with cigarette use and with obesity (1). HL accounts less than %1 of all malignancies and it's incidence is higher in male. It's reported that patients with Non-Hodgkin's lymphoma (NHL) have higher risk of secondary malignancy when compared to normal population (2,3). Coexisting between RCC and HL is more rare event than coexisting between RCC and NHL. To our knowledge there is only one report in literature indicating coexistence between RCC and HL (4). We presented a case indicating coexistence between HL and RCC and literature review about this rare coincidence.

Case Presentation

We present the case of a 61 year-old man with 15 pack year of smoking history who admitted to hospital with lumbar pain. He had a history of inguinal herniorrhaphy forty years ago. Physical examination findings were normal and the results of laboratory examinations were all in normal ranges

except for mild anemia (hemoglobin:12.2 g/dL). During the initial evaluation ultrasonography revealed a solid mass in the right kidney and spleen. Solid mass in spleen which is compatible with lymphoma, left paraaortic lymph nodes with up to 3 cm in diameter and also 3 cm solid mass originating from middle pole and lateral border of the right kidney were detected with magnetic resonance imaging (MRI) (Figure 1, 2). No evidence of any pathology observed with neck and thorax computed tomography (CT) study. Positron emission tomography (PET/CT) revealed increased activity in the region of spleen and paraaortic lymph nodes. Splenectomy, partial nephrectomy and regional lymph node dissection were performed. The result of histopathologic examination revealed RCC (clear cell carcinoma, fuhrman grade 2) and Hodgkin's lymphoma (mix cellular type) and all margins were negative for cancer. After an uneventful postoperative period the patient received radiotherapy and four cycles chemotherapy with a protocol of doxorubicin, bleomycin, dacarbazine, vinblastine.

Discussion

Treatment associated second malignancies have been described in long term survivors of Hodgkin's lymphoma (HL). Patients who

Correspondence

Hakan Türk MD, Tepecik Training and Research Hospital, Clinic of Urology, İzmir, Turkey
Phone: +90 555 551 68 85 E-mail: hkntrk000@hotmail.com

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received HL treatment, the occurrence risk of secondary solid cancer is 13%, 17% and 22% in 15, 20 and 25 years follow-up consequently (5,6,7,8,9). Synchronous NHL and RCC was previously reported and NHL was considered as a risk factor for renal cell carcinoma (10). RCC as a secondary malignancy developed during the follow-up period of lymphoma was also reported in a study from Turkey including five NHL patients (11). The most common secondary cancers developing after NHL treatment are reported to be breast, lung and gastrointestinal cancers in order (12). Kidney cancer as a treatment associated second malignancy was reported in five NHL patients in a cohort study (12). Various theories were postulated for this co-incidence and it's suggested that immunosuppression related to drugs used for NHL treatment such as cyclophosphamide, prednisolone, vinblastine and

adriamycin may lead to RCC formation (3,4). Immunodysregulation, genetic predisposition, chromosomal abnormalities and viral agents are some other factors accused of developing this association (13,14,15). Despite all these theories postulated, it's not still clear the underlying mechanism of RCC developing in patients with lymphomas.

Conclusions

Secondary malignancies associated to treatment of NHL is well known entity. Although synchronous NHL and RCC were previously presented in some reports, scant data is present regarding the coexistence between RCC and HL. The possibility of this coexistence should be kept in mind when evaluating these patients at diagnosis or during follow-up.

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Figure 1. Two solid masses compatible with lymphoma in spleen, 3 cm solid mass in middle and lateral side of right kidney



Figure 2. Pathological lymph nodes in left paraaortic space