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Coexistence of Hematological Malignancies and Renal Cell Carcinoma

Hematolojik Maligniteler ve Renal Hücreli Karsinom Birlikteliği

Fatma Yılmaz(İD)
Clinic of Hematology, Etlik City Hospital, Ankara, Türkiye

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Address for Correspondence/Yazışma Adresi
Fatma Yılmaz
Clinic of Hematology, Etlik City Hospital, Ankara, Türkiye
e-mail: dr.fatmak@hotmail.com

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In hematological malignancies, many renal pathologies such as vascular, interstitial, tubular and glomerular are encountered during the course of the disease (1). Apart from this, the occurrence of renal carcinomas and hematological malignancies in the same case has been reported in the literature for at least 20 years. Although renal carcinomas are also seen in the following subtypes of clear cell, papillary, chromophobe, sarcomatoid, transitional, the most common subtype is renal cell carcinoma (RCC) with a frequency of 90% (2). The occurrence of hematologic malignancy and RCC in the same case is rare, but its frequency is higher than in the general population (3). In studies with limited number of cases in the literature, hematologic malignancies often occur before or at the same time as RCC in patients (4). Hematological malignancies associated with RCC are chronic lymphocytic leukemia, non-Hodgkin lymphoma, multiple myeloma, chronic myelocytic leukemia, myelodysplastic syndrome, Waldenström macroglobulinemia, primary myelofibrosis (2). It is assumed that increased life span, environmental factors, hormones, viral infections (Epstein-Barr virus, helicobacter pylori infection, human T lymphotropic virus-1, genetic mutations (del 17p, 3p mutation, PTEN gene positivity), secondary malignancy after chemotherapy (alkylating agents)/radiotherapy exposure, immune system dysregulation due to the immune modulatory effect of the primary malignancy, and increased Interleukin-6 secretion may play a role in the pathogenesis (4-6) .

Although it varies according to the hematological diagnosis, histology, stage and clinical course of both diseases, both diseases can be monitored without treatment after diagnosis.

However, the risk of the tumor turning into a more aggressive course should be taken into consideration (4). If hematological malignancy requires treatment, excision or thermal ablation of the RCC mass is recommended before immunosuppressive therapy due to the possible risk of progression of the mass (7). In cases where there is a suspicion of hematological malignancy or profound anemia that cannot be explained by nutritional deficiency, further examination (biopsy from different sites) should be considered, taking into account the diagnosis of concurrent malignancy (e.g possible RCC). At this stage, erythropoietin levels may be useful (5).

In cases with RCC and hematological malignancy, more frequent, more detailed and more careful follow-up should be performed. In addition, the frequency of coexistence should always be kept in mind during follow-up of patients with isolated RCC or isolated hematological malignancy. The underlying mechanism of the coexistence of the two pathologies in the same case has not been clarified. To elucidate the pathogenesis of RCC and hematological malignancy, multi-center studies with a large number of patients and supported by artificial intelligence systems and advanced genetic studies (new generation sequencing, fish, PCR etc.) are needed.

CONFLICT of INTEREST

No conflict of interest declared.

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