

Bilateral Primary Renal Lymphoma Presenting with Acute Renal Failure

Akut Böbrek Yetmezliği ile Prezente Olan Primer Bilateral Renal Lenfoma

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Abstract

Non-Hodgkin's lymphoma is a multisystem disease presenting with painless lymph node involvement in patients between 40 and 70 years of age. Kidney failure can be seen in about 10% of lymphoma patients due to different reasons. However, renal failure caused by lymphomatous parenchymal infiltration of the kidneys is very rare. In this study, we present a case of bilateral primary renal lymphoma presenting with acute renal failure.

Keywords: Lymphoma, acute renal failure, renal mass

Öz

Non-Hodgkin lenfoma 40-70 yaşları arasında ağrısız lenf nodu tutulumu ile giden multisistemik bir hastalıktır. Lenfomalı hastaların %10'unda farklı sebeplerden dolayı böbrek yetmezliği izlenebilir. Fakat böbrek parankiminin lenfomatöz infiltrasyonuna bağlı böbrek yetmezliği çok nadir görülen bir tablodur. Biz bu çalışmada akut böbrek yetmezliği ile prezente olan primer bilateral renal lenfoma olgusunu sunuyoruz.

Anahtar Kelimeler: Lenfoma, akut böbrek yetmezliği, renal kitle

Introduction

Non-Hodgkin's lymphoma is a multisystem disease presenting with painless lymph node involvement in patients between 40 and 70 years of age (1). Extranodal involvement of the kidney is common and this situation is usually asymptomatic (2). Autopsy studies have shown that about 50% of lymphoma cases have secondary involvement of the kidneys (3,4). Kidney failure can be seen in about 10% of lymphoma patients due to different reasons. However, renal failure caused by lymphomatous parenchymal infiltration of the kidneys is very rare (5). In this study, we present a case of bilateral primary renal lymphoma presenting with acute renal failure.

Case Presentation

Informed consent was obtained from the patient. A 64-year-old male patient presented to our clinic with the complaint of chronic fatigue. Vital signs were normal and no comorbidities were detected. Systemic examination was unremarkable. The patient had normal urinalysis values. Among the biochemical parameters, only the creatinine level was slightly above the normal levels (4.5 mg/dL).

Ultrasonography showed both kidneys larger than normal and increased echogenicity of the renal parenchyma.

Computed tomography scan detected bilateral solid masses with irregular borders infiltrating the parenchyma and collection system which extended towards the perirenal tissues. The mass

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on the left kidney was larger than that on the right kidney (Figure 1). Magnetic resonance imaging showed that both kidneys were larger than normal and both kidneys had irregularly bordered solid tumor infiltrations with heterogeneous intensity.

Since the patient had bilateral masses on both kidneys, biopsy was indicated. Two samples were obtained from the left kidney using a 18G Tru-cut biopsy needle by entering the parenchyma from the lower pole of the kidney.

Pathology reported "B-Cell lymphoma" after histopathological and immunohistochemical assessment of the samples (Figure 2).

The patient was diagnosed with primary renal lymphoma and was referred to the hematology department for chemotherapy.

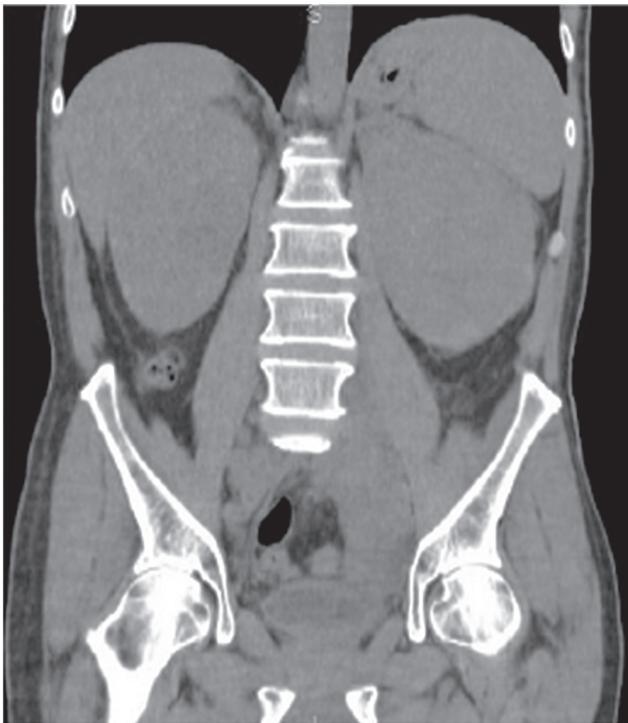


Figure 1. Irregularly bordered solid mass infiltrating parenchyma and collection system which extended towards perirenal tissues

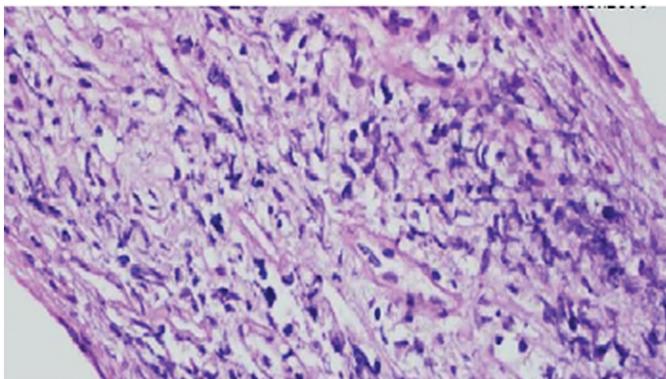


Figure 2. Histopathological and immunohistochemical assessment of the samples; B-cell lymphoma

Discussion

In the literature, the incidence of renal involvement in Non-Hodgkin's lymphoma has been reported to be 2.7-6% (6).

Primary renal lymphoma makes up about 0.7% of extranodal lymphomas in the USA and 0.1% in Japan. For primary renal lymphoma diagnosis, there should be no lymphoma involvement in any other area other than kidneys (7). The etiology of primary renal lymphoma is still debated since the kidneys do not contain any lymphoid tissue (8).

Glicklich et al. (9) speculated that tumor infiltration was due to pressure on tubular lumen which caused intrarenal obstruction and showed a flattening of both tubular and epithelium cells in histology results.

In their study, Li et al. (10) highlighted the importance of biopsy in proteinuria and renal failure patients with renal masses and diagnosed 18 out of 20 patients with non-Hodgkin's lymphoma, with 9 bilateral cases.

In cases with suspected renal lymphoma, the diagnosis should be confirmed by ultrasound-guided Tru-cut biopsy (11).

Ethics

Informed Consent: Informed consent was obtained from the patient.

Peer Review: External and internal peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: S.Ü., H.T., O.K., Concept: S.Ü., A.S.D., Design: S.Ü., O.K., Y.Y., Data Collection or Processing: A.O.Ç., O.K., H.T., Analysis or Interpretation: A.S.D., A.C.E., Literature Search: E.M.Y., S.Ü., Writing: S.Ü.

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