Acute Crescentic IgA Nephritis in a Patient with Hodgkin’s Lymphoma

Hodgkin Lenfomalı Hastada Akut Kresentrik Ig A Nefriti

ABSTRACT

In glomerular diseases, the occurrence of lymphoma is mostly observed in the form of both minimal change disease and Hodgkin’s lymphoma. The cooccurrence of Membranous nephropathy and membranoproliferative glomerulonephritis is generally associated with non-Hodgkin’s lymphoma. While Ig A nephropathy-lymphoma association is rare, it is generally observed in the form of non-Hodgkin’s lymphoma, and there are also cases proposed the cooccurrence of Ig A nephropathy and cutaneous T-cell lymphoma. In this case, it is emphasized that IgA nephropathy presented with crescentic glomerulonephritis should be considered in patients with Hodgkin’s lymphoma who have sudden renal disorder.

KEY WORDS: Hodgkin’s lymphoma, Ig A nephropathy, Crescentic glomerulonephritis

INTRODUCTION

In glomerular diseases, the occurrence of lymphoma is mostly observed in the form of both minimal change disease and Hodgkin’s lymphoma. The cooccurrence of Membranous nephropathy and membranoproliferative glomerulonephritis are generally associated with non-Hodgkin’s lymphoma (1). In this case report, an unusual association involving a patient with immunoglobulin (Ig) A nephritis presented with acute crescentic glomerulonephritis, who was diagnosed with Hodgkin’s lymphoma, is presented.

CASE REPORT

A 33-year-old male was diagnosed with Hodgkin’s lymphoma six months ago, and was treated with ABVD (Adriamycin, bleomycin, vincristine, decarbonize) by the Hematology Department. Apart from Hodgkin’s lymphoma, the patient has been diagnosed with leukocytoclastic vasculitis by performing biopsy in the patient’s skin lesions localized at lower extremity 2 months ago. The patient was started on steroid treatment for leukocytoclastic vasculitis. It was noted that the patient was started on oral-prednisone 30 mg treatment (its dosage was adjusted as 0.5-1mg/kg/day) for leukocytoclastic vasculitis and it was tapered gradually according to occurrence and frequency of symptom. It was also noted that in this period, blood creatinine was normal, ANCA was negative and a renal biopsy was performed to the patient had 1 g/day proteinuria for suspected vasculitis with
renal involvement. According to the biopsy results, findings that were compatible with Ig A (Figure 1) nephropathy were reported, but the patient did not report for the follow-up examinations. According to the physical examination of the patient who was about to begin the second cycle of ABVD treatment, the patient was conscious, blood pressure was 190/90 mmHg, heart rate was 78/minute, respiratory rate was 16/minute and there was a swelled lesion in the lower extremity. According to the laboratory examinations; erythrocyte sedimentation rate: 60 mm/hour, white blood cell count: 4000/mm3, hemoglobin: 9.9 g/dl, thrombocyte: 75000/mm3, BUN: 98 mg/dl, creatinine: 2.12 mg/dl, Na: 130 mEq/l, K: 4 mEq/l, total protein: 6.8 g/dl, albumin: 2.3 g/dl, AST: 48 U/L, and ALT: 35 U/L. According to fully-automatic urine test, density was 1018, protein level was 300 mg/dl, white blood cells were 1/HPF (High power field), and red blood cells were 5/HPF.

According to the examinations for differential diagnosis of renal function disorder, spot urine protein/creatinine level was 13 gr/gr. There was no growth in the bacterial culture. Anti-HIV was negative, Anti-HCV was negative and HbsAg was negative. IgG, IgA, IgM, C3, and C4 levels were normal, ANA, anti-dsDNA, anti-GBM, and p and c ANCA were negative. One red blood cell cast and 2-3 dysmorphic red blood cells were detected in per field of urinary sediment. According to the urinary tract USG, bilateral kidney sizes and parenchyma thickness were considered normal. Massive proteinuria was detected in the follow-ups, the patient’s urine amount decreased (50-100 cc/day), hypervolemia developed, and the patient’s creatinine level rapidly increased to 2.12-3.2-4.5-6 mg/dl. The patient was started on hemodialysis. On the day the patient was received dialysis treatment, was diagnosed with rapidly progressive glomerulonephritis diagnosis with the existing findings, started on 500 mg methylprednisolone IV treatment, and a renal biopsy was performed. According to the biopsy results, findings that were compatible with crescentic Ig A nephritis (Figure 2) were reported. The patient was started on steroid (three day - 500 mg IV Methylprednisolone) and cyclophosphamide treatment (0.75 g/m2 dosage 750 mg IV). After pulse steroid treatment, 40 mg/day prednisolone treatment was continued. In the follow-ups, the patient did not require dialysis, the patient’s renal functions continued to decline, and the creatinine level was 1.6 mg/dl. The patient is currently being monitored in the nephrology polyclinic. The patient which had 1.5 g/day proteinuria is currently taking oral-steroid treatment for Ig A nephropathy. While the renal treatment is continued, the patient whose second cycle of ABVD treatment is postponed due to his general medical condition is taking treatment chemotherapy.

**DISCUSSION**

IgA nephropathy is frequently observed together with solid tumors such as respiratory system tumors, nasopharyngeal tumors and renal cell tumors (2). While Ig A nephropathy-lymphoma association is rare, it is generally observed as non-Hodgkin’s lymphoma, and there are also cases with cutaneous T-cell lymphoma (3, 4). In Hodgkin’s lymphoma, pressure due to para-aortic lymph node enlargement and post-rein kidney failure is frequently observed. In addition, renal problems, urate nephropathy, tumor lysis syndrome, and treatment-associated side effects are among the other observed problems (5). Glomerular diseases are rare in Hodgkin’s lymphoma, and usually associated with minimal change disease. T-helper 2-associated IL-13, which is responsible for the inflammatory response in Hodgkin’s lymphoma, was demonstrated to be responsible for proteinuria, hypoalbuminemia, and hypercholesterolemia in rats. T cell dysregulation is believed to be responsible for Hodgkin’s lymphoma and minimal change disease association.
hypothesis (6). According to the literature knowledge, the association between IgA nephropathy and Hodgkin’s lymphoma is rare and there are only two case reports. According to the first case presented by Cherubini et al., a 44-year-old patient with a mediastinal mass and nephrotic syndrome, was diagnosed with IgA nephropathy one year after being diagnosed with Hodgkin’s lymphoma. The patient was started on eight cycles of ABVD (Adriamycin, bleomycin, vincristine, decarboxize) treatment for lymphoma. Diffuse extracapillary glomerulonephritis was detected in the renal biopsy, and the patient was started on pulse steroid treatment, followed by oral steroids for IgA nephropathy. The patient required dialysis in the beginning, but the patient’s renal functions were completely restored later (7). In our case, the patient is diagnosed with IgA nephropathy according to the result of proteinuria dependent renal biopsy 4 months after being diagnosed with Hodgkin’s lymphoma. However, the patient doesn’t admit nephrology polyclinic because of Ig A nephropathy. In the second case presented by Bergmann et al., a 60-year-old patient was diagnosed with Hodgkin’s lymphoma and IgA nephropathy after a concurrent biopsy. The patient’s renal biopsy was consistent with extracapillary proliferation, and the patient was put on pulse steroid treatment, followed by eight cycles of cyclophosphamide-containing BEACOPP (cyclophosphamide, etoposide, bleomycin, doxorubicin, vincristine, procarbazine, and prednisolone) lymphoma treatment. One year after treatment, the patient’s renal functions were restored (8). In our case, the patient was diagnosed with rapidly progressive glomerulonephritis diagnosis, six months after has been diagnosed with lymphoma and two months after being diagnosed with IgA nephropathy. According to the repeated renal biopsy results, findings were compatible with crescentic Ig A nephropathy. With the help of treatment, the patient did not require dialysis within one month, however, after two months, the patient’s renal functions didn’t get better completely and the creatinine level dropped behind 1.6 mg/dl.

CONCLUSION

In conclusion, the association between Hodgkin’s lymphoma and IgA nephropathy is rare. In this case, it is emphasized that IgA nephropathy presented with crescentic glomerulonephritis should be considered in patients with lymphoma who have sudden renal disorder. It is possible to treat both diseases using lymphoma treatment regimes including steroids and cyclophosphamide.

REFERENCES