Vasculitis Associated with Non-Hodgkin's Lymphoma

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Dear Sir,

In the last few years, several types of glomerulonephritis have been reported in patients with non-Hodgkin's lymphoma (NHL) namely focal sclerosing, membranoproliferative, mesangioproliferative as well as membranous nephropathy and crescentic glomerulonephritis [1-3]. Focal necrotizing glomerulonephritis associated with NHL is extremely uncommon [4-9].

We report a patient with vasculitis in whom a lymphoma was discovered following her death. A 72-year-old woman was admitted because of a 2-month history of fever, weight loss, dyspnea, hemoptysis and bilateral pulmonary infiltrates.

On physical examination blood pressure was 120/70 mm Hg. Cutaneous lesions were absent. Lymphadenopathies and hepato-splenomegaly were not found. Analytical studies disclosed: erythrocyte sedimentation rate of 98 mm in the first hour, hemoglobin 8.3 g/dl, leukocyte count 14,900 cells/mm³, platelets 375,000/mm³; urea 220 mg/dl, serum creatinine 7.1 mg/dl. Proteinuria was 8 mg/kg/day and urine red blood cells 108,000/min with hyaline and granular casts.

Plasma proteins were 5.4 g/dl. Serum albumin was 3.2 g/dl. Transaminases were normal. Antinuclear antibodies, C3, C4 and CH50, serum immunoglobulins, cryoglobulins, hepatitis B surface antigen and hepatitis C virus antibodies were normal or negative. C-ANCA antibodies were negative and P-ANCA were positive (ELISA).

Abdominal ultrasonography was normal. During the following days renal function deteriorated, and hemodialysis was started.

A renal biopsy showed 4 glomeruli, all of them presenting focal fibrinoid necrosis of the glomerular tuft. Intense interstitial mononuclear cell infiltrates and atrophic tubules were found (fig. 1). Direct immunofluorescence was negative for IgG, IgM, IgA and C3.

The patient received oral prednisone (1 mg/kg/day) and cyclophosphamide (2 mg/kg/day). Her general condition improved, fever disappeared and serum creatinine decreased to 5 mg/dl 7 days after treatment.

She had a sudden death on the 30th day after admission. Autopsy was performed. A low-grade B lymphoma was found on liver, bone marrow and para-aortic and mesenteric lymph nodes (fig. 2). Findings on brain were unremarkable. The lungs showed old and recent hemorrhagic lesions without vasculitic lesions. There was no lymphomatous infiltration of the kidneys.

Vasculitis may occur in association with several malignancies such as NHL [10]. To the best of our knowledge there are only 8 previous reports concerning the association of NHL and vasculitis [4-9].

All cases reported were male with a mean age of 56 years (range 48-63 years). Most of the reported patients had cutaneous vasculitis, and renal failure was present in 3 of them [4-9]. Although it can be thought that the presence of focal necrotizing glomerulonephritis and NHL was a coincidence, the parallel course of both disorders suggests that there is a pathogenic association between them.

The treatment of this entity is not well established. Resolution of renal failure after treatment for NHL and renal deterioration after lymphoma relapses have been described [4].

Finally, recognition that vasculitis may precede a lymphoma may permit early diagnosis and prompt treatment of this malignancy.

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Fig. 1. Necrotizing glomerulonephritis in a renal glomerulus. H.E. × 44.

Fig. 2. Low-grade B lymphoma infiltration a lymph node H.E. × 44.

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