

Acute Exudative Diffuse Proliferative Glomerulonephritis in A Patient with Type 2 Diabetes Mellitus

Tip 2 Diyabetes Mellitusu Olan Bir Hastada Akut Eksudatif Diffüz Proliferatif Glomerulonefrit

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ABSTRACT

The prevalence of non-diabetic renal disease varies widely from 12 to 45% among type 2 diabetic patients proven by renal biopsy performed. We describe a case of a patient with type 2 diabetes mellitus and acute diffuse proliferative exudative glomerulonephritis.

KEY WORDS: Type 2 diabetes mellitus, Non-diabetic renal disease, Acute exudative diffuse proliferative glomerulonephritis

ÖZ

Tip 2 diyabetes mellitusu olan ve böbrek biyopsisi yapılan hastalarda, diyabet dışı böbrek hastalığı prevalansı %12-45 arasında değişmektedir. Aşağıdaki yazıda Tip 2 diyabetes mellitusu ve akut diffüz proliferatif eksudatif glomerulonefriti olan bir olgu sunulmuştur.

ANAHTAR SÖZCÜKLER: Tip 2 diyabetes mellitus, Diyabet dışı böbrek hastalığı, Akut diffüz proliferatif eksudatif glomerulonefrit

INTRODUCTION

Diabetic glomerulosclerosis is the most frequent cause of renal disease in patients with Type 2 diabetes mellitus (DM) (1). The prevalence of non-diabetic renal disease varies widely from 12 to 45% among type 2 diabetic patients confirmed with renal biopsy, depending on the selection criteria and the populations being studied (2).

CASE HISTORY

A 57-year-old woman with a history of Type 2 DM for 12 years was admitted to hospital because of a worsening traumatic wound in her left big toe. She had undergone panretinal photocoagulation last year. Physical examination revealed a necrotizing and exudative lesion 6x8 cm in size on the left big toe invading the plantar region of the foot. On laboratory examination, serum blood urea nitrogen (BUN) level was 92 mg/dl, while serum creatinine was 8.7 mg/dl. Urinalysis revealed 2(+) proteinuria together with 10 leukocytes and 15

erythrocytes per high power field. The urine culture was negative. Renal ultrasonography was normal. The patient underwent hemodialysis due to uncontrolled metabolic acidosis. Hemodialysis was interrupted on the third week as serum levels of BUN and creatinine gradually dropped to 47 and 1.7 mg/dl, respectively. She then underwent renal biopsy that revealed diffuse proliferative exudative glomerulonephritis (Figure 1).

DISCUSSION

Although the presence of hematuria, immunologic abnormalities, uncharacteristic change in renal function and absence of diabetic retinopathy are useful in patients with Type 1 DM as indicators that renal biopsy is required (1), the validity of these criteria is not well established for Type 2 diabetic patients. Moreover, renal biopsies from type 2 diabetic patients with renal disease have revealed a more heterogeneous group of renal lesions or concurrent nephropathy other than diabetic nephropathy lesions in previous reports (3,4).

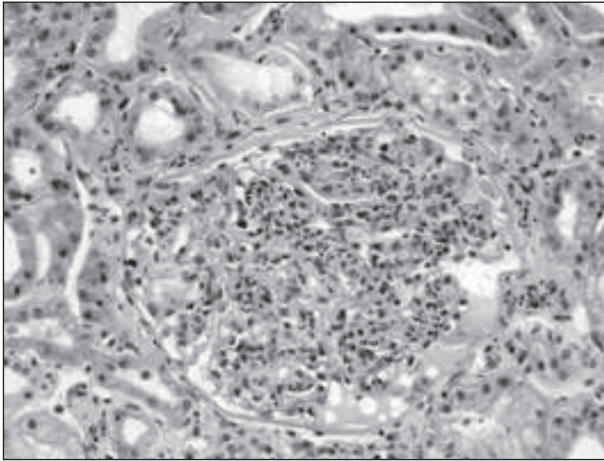


Figure 1: Diffuse endocapillary proliferation and polymorphonuclear leukocyte infiltration in the glomerulus (H&E staining, x 400).

Although retinopathy has been strongly correlated with the presence of diabetic glomerulosclerosis, discordance in the occurrence of the two complications is not uncommon (1). Furthermore, it has been suggested that the two complications show dissimilar genetic predisposition (5). Although the short duration of DM was stated to be an indicator for NDRD, some papers did not support such a relationship (6). NDRD still could

not be completely excluded in patients with DM > 10 years and retinopathy, (7). Useful clinical information (hematuria and rapid renal recovery in this case) must be incorporated to decide whether a renal biopsy should be performed, even in presence of long-standing DM and retinopathy.

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