Role of urinalysis in patients with lichen planus

Simona Roxana Georgescu¹, Corina-Daniela Ene², Mircea Tampa¹, Cristina Iulia Mitran³, Madalina Irina Mitran³, Ilinca Nicolae³

1. "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

2. "Carol Davila" Clinical Hospital of Nephrology

3. "Victor Babes" Hospital of Infectious and Tropical Diseases, Bucharest, Romania

Lichen planus (LP) is a complex immunologically mediated disease, which affects the skin and mucous membranes. In medical literature there are few reports on the connection of LP with renal disorders. In this paper we present some findings on the association between LP and renal disorders.

We conducted an observational study on a sample of 77 patients with LP (49 cases of cutaneous LP, 28 cases of oral LP) and 50 healthy controls. The evaluation of study participants included clinical examination and paraclinical investigations.

Compared to controls, in the patients with LP the following quantitative changes were found: a low value of estimated glomerular filtration rate (eGFR) (18.18%), an elevated albumin/creatinine ratio (19.48%), hyperuricosuria (16.88%), hypocitraturia (14.28%), hyperoxaluria (11.68%), hypercalciuria (10.39%), hypomagnesiuria (15.58%), hypernatriuria (19.48%), leukocyturia (18.18%), erythrocyturia (14.28%), bacterial/fungal infections (24.67%) (Figure 1).

Based on anamnesis, imaging and laboratory tests the following kidney and urinary tract disorders were diagnosed in the patients with LP: diabetic nephropathy (3 cases), nephritis (1 case), membranous glomerulonephritis related to hepatitis B virus (1 case), urolithiasis (8 cases), urethritis (4 cases), pyelonephritis (7 cases), cystitis (5 cases) (Figure 2).

No differences were observed between patients with oral LP and cutaneous LP regarding the presence of renal impairment ($p = 0.264$).

These findings prove that LP is a condition frequently associated with renal manifestations (a decline of kidney function was identified in 1 of 5 patients with LP). The use of a full panel of investigations in patients with LP may help the dermatologist elaborate a plan of close observation in order to prevent the development of complications in these patients.

Urinalysis in LP patients

Kidney and urinary tract disorders in LP patients

References

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