Clinico-biological presentation of minimal change disease at the first consultation

Rania Kandil[1], Tlili Syrine[1,2], Hiba Ghabi[1,2], Feyza Rebhi[1], Mariam Boukhtiwa[1,2], Lamia Rais[1,2], Karim Zouaghi[1,2]

[1]Rabta Hospital, Tunis, Tunisia
[2]Faculty of Medicine of Tunis, Tunis, Tunisia

Abstract

Introduction: Minimal change disease (MCD) is a notable cause of nephrotic syndrome in adults, although it is more frequently observed in children. In adults, it typically presents as a pure nephrotic syndrome, but criteria for impurity can also be observed.

Description: A retrospective study was conducted in a nephrology department between 2015 and 2022. We included all patients who underwent a renal biopsy confirming the appearance of MCD. The analysed parameters included age, sex, blood pressure, serum creatinine levels, proteinuria, and immunological test results. This study aims to examine the clinical and biological presentations of adults with MCD at their first consultation, highlighting the particularities of this population.

Results: Nineteen patients were included, with a mean age of 35.74 ± 15.85 years and a gender ratio (M/F) of 1.11. One patient had a history of lymphoma and another was treated for pulmonary tuberculosis. Three patients (16%) had been followed since childhood for relapsing nephrotic syndrome. The most common presentation was nephrotic syndrome (84%), impure in 37.5% of cases by isolated hematuria (67%) or hematuria associated with renal failure (33%). Dyslipidemia was noted in all patients with nephrotic syndrome, with a mean cholesterol level of 9.2 ± 3.2 mmol/L and a mean triglyceride level of 2.64 ± 1 mmol/L. Optical microscopy revealed nephronic reduction of 5-15% in 6 patients and interstitial fibrosis and tubular atrophy of 10-20% in two patients.

Conclusion: MCD presents a classic clinical picture of pure nephrotic. Renal function generally remains preserved at this initial stage, highlighting the importance of early diagnosis and treatment.