OBESITY-RELATED GLOMERULOPATHY

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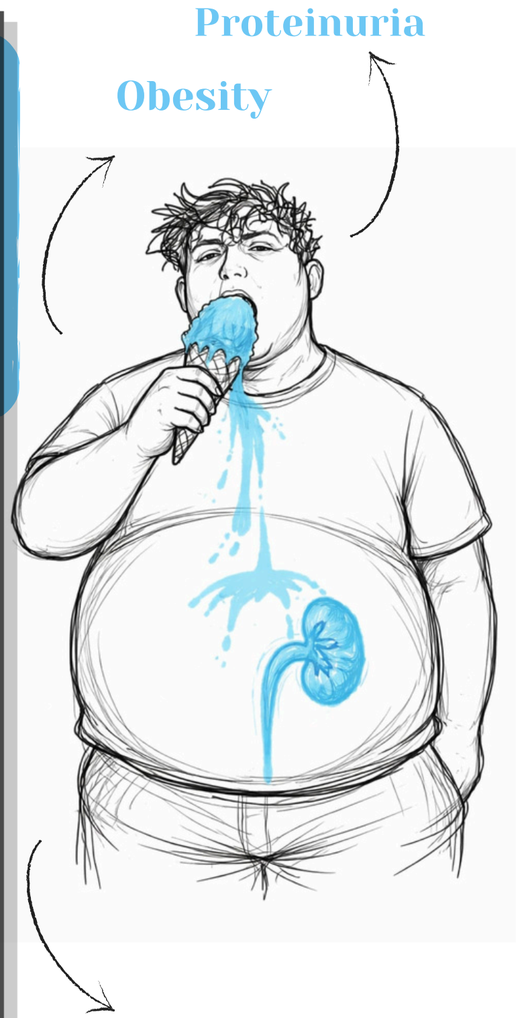
Background

Obesity is the leading non-communicable chronic disease of today, with a continuously increasing prevalence both globally and in Croatia. According to data from the Croatian Institute of Public Health, as many as 65% of adults are overweight or obese. Obesity can impact kidney function indirectly through arterial hypertension and type 2 diabetes mellitus, but also directly via glomerular hyperfiltration, resulting glomerulomegaly and podocyte depletion, which manifests as proteinuria, and eventually leads to focal segmental glomerulosclerosis (FSGS).



Case report

We present a patient younger than 40 years with obesity (BMI = 30.8), initially evaluated due to anasarca. Laboratory findings showed impaired kidney function, reflected by elevated creatinine (194 μmol/L), reduced GFR (36 ml/min/1.73 m²), severe proteinuria (2449.7 mg/24 h) and albuminuria (578.1 mg/24 h), which led to a kidney biopsy. Histological findings included glomerulomegaly, periglomerular and perihilar focal segmental glomerulosclerosis, interstitial fibrosis, tubular hypertrophy and arteriolar hyalinosis with luminal stenosis, corresponding to nephron hypertrophy and severe hyaline arteriosclerosis. In the absence of significant immunological findings, it was concluded that this represents obesity-related glomerulopathy (ORG).

Conclusion

Until now, kidney damage was primarily expected in older individuals with high body mass index as one of many comorbidities, particularly those with morbid obesity. However, due to the increasing prevalence of obesity, which can be an independent cause of kidney damage, it can also be expected in younger populations, such as our patient who shows signs of multi-organ damage secondary to obesity. Therefore, early recognition and treatment are important to slow the progression of chronic kidney disease.