

ENDOCRINOLOGIA

EFFECT OF METABOLIC SYNDROME AND OF ITS INDIVIDUAL COMPONENTS ON RENAL FUNCTION OF PATIENTS WITH TYPE 2 DIABETES MELLITUS

MILENE MOEHLECKE; C. B. LEITÃO, C. K. KRAMER, T. C. RODRIGUES, C. NICKEL, S. P. SILVEIRO, J. L. GROSS AND L. H. CANANI

The objective of this study was to evaluate the effect of metabolic syndrome (MetS) and its individual components on the renal function of patients with type 2 diabetes mellitus (DM). A cross-sectional study was performed in 842 type 2 DM patients. A clinical and laboratory evaluation, including estimated glomerular filtration rate (eGFR) calculated by the modification of diet in renal disease formula, was performed. MetS was defined according to National Cholesterol Education Program - Adult Treatment Panel III criteria. Mean patient age was 57.9 ± 10.1 years and 313 (37.2%) patients were males. MetS was detected in 662 (78.6%) patients. A progressive reduction in eGFR was observed as the number of individual MetS components increased (one: 98.2 ± 30.8 ; two: 92.9 ± 28.1 ; three: 84.0 ± 25.1 ; four: 83.8 ± 28.5 , and five: 79.0 ± 23.0 ; $P < 0.001$). MetS increased the risk for low eGFR ($<60 \text{ mL}\cdot\text{min}^{-1}\cdot 1.73 \text{ (m}^2\text{)}^{-1}$) 2.82-fold (95%CI = 1.55-5.12, $P < 0.001$). Hypertension (OR = 2.2, 95%CI = 1.39-3.49, $P = 0.001$) and hypertriglyceridemia (OR = 1.62, 95%CI = 1.19-2.20, $P = 0.002$) were the individual components with the strongest associations with low eGFR. In conclusion, there is an association between MetS and the reduction of eGFR in patients with type 2 DM, with hypertension and hypertriglyceridemia being the most important contributors in this sample. Interventional studies should be conducted to determine if treatment of MetS can prevent renal failure in type 2 DM patients.

Apoio CNPq, Fapergs, FIPE