Endocrinol Diabetes Nutr. 2020;67(Espec Cong 2):33

Endocrinología, Diabetes y Nutrición

116 - SERUM COPEPTIN CONCENTRATIONS ARE NOT ASSOCIATED WITH ASYMPTOMATIC PERIPHERAL ARTERY DISEASE IN PATIENTS WITH TYPE 1 DIABETES

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Resumen

Objectives: Copeptin, a surrogate marker of vasopressin, is associated with cumulative incidence of lower-extremity amputations in people with type 1 diabetes (DM1). We aimed to address the putative association between copeptin concentrations and asymptomatic peripheral arterial disease (aPAD) in patients with DM1.

Methods: We conduced an observational cross-sectional study including 112 patients with DM1 from a larger cohort (clinicaltrials.gov NCT02910271). aPAD was evaluated using the toe-brachial index and peripheral doppler ultrasound. Thirty-seven patient had aPAD, 52 study patients showed a normal ankle-brachial index (ABI) and 23 presented a normal vascular exploration despite an abnormal ABI. Both groups -those with and without aPAD- had a similar mean age, duration of DM1and sex distribution. Copeptin concentration was measured in fasting serum samples by a high sensitive ELISA assay, and its association witg ABI, presence of aPAD, and other clinical and biochemical variables was evaluated.

Results: The study population&#39s mean age was 42 ± 8 yrs with the duration of disease of 27 ± 7 yrs and mean HbA_{1c} of 7.7% ± 1.1%. We did not find differences in fasting copeptin among patients with or without aPAD (68.3 ± 43.6 vs 69.4 ± 59.3 pg/mL, respectively, p = 0.462). Considering all patients as a whole, copeptin levels correlated with office systolic blood pressure (BP) (r: -0.209, p = 0.027), eGFR (r: -0.271, p = 0.004), and serum sodium (r: -0.208, p = 0.027), but not with ABI (r: -0.068, p = 0.476). We conduced a multiple lineal regression analysis introducing as independent variables: sex, age, duration of DM1, systolic and diastolic BP, eGFR and serum sodium. The stepwise model (R^2 0.059, p = 0.035) retain only systolic BP (β: -0.210, 95%CI: -1.391;-0.089) p = 0,026 as significant predictor of copeptin levels.

Conclusions: Fasting copeptin concentrations do not appear to be associated with aPAD in patients with DM1. Further studies are needed to elucidate its potential role on the subclinical vascular disease in this population.