Gastrenterologia, Nutrição e Hepatologia | Casuística / Investigação

CO-038 - (22SPP-12339) - NONALCOHOLIC FATTY LIVER DISEASE AND CONTINUOUS METABOLIC SYNDROME IN ADOLESCENTS WITH OVERWEIGHT/OBESITY

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Introdução e Objectivos
Although nonalcoholic fatty liver disease (NAFLD) is closely associated with obesity, its relationship with metabolic syndrome (MS) is not fully understood. Our main purpose was to explore NAFLD as a predictor of cardiometabolic (CM) risk factors aggregation in adolescents with overweight/obesity (Ow/Ob), using a pediatric simple MS score (PsiMS) to predict MS.

Metodologia

A longitudinal retrospective cohort study was conducted. Adolescents (10-17 years) with Ow/Ob followed at 2 clinical centers in Portugal (2018-2021) were enrolled. The independent association of PsiMS with NAFLD and other potential predictors was tested through multiple regression analyses. ROC curve analysis was performed to estimate the optimal cutoff of PsiMS for predicting MS.

Resultados

Among the 84 eligible subjects (median age at baseline 11.5 years) prevalence of NAFLD was 51% and prevalence of MS was 7%. Mean PsiMS was 2.05±0.48 at baseline, 2.11±0.52 at follow-up. The NAFLD group had significantly ($p<0.05$) higher weight and BMI z-scores, higher rate of severe obesity and higher waist circumference centile. PsiMS was highly accurate in predicting MS (AUC=0.96), with an optimal cutoff of 2.46. Female sex had a negative association with PsiMS. Independent predictors of a higher baseline PsiMS were: ≥2 MS criteria, BMI z-score, insulin resistance and dyslipidemia; at follow-up: NAFLD, baseline PsiMS and BMI increase from baseline.

Conclusões

The results indicate a worrisome prevalence of NAFLD, a good performance of the PsiMS to assess MS and point to NAFLD as a potential predictor of PsiMS at follow-up. Besides the limitations we can recommend special attention to CM risk in males, those with NAFLD, dyslipidemia, insulin resistance, with higher BMI z-score and higher BMI z-score increase.

Palavras-chave : nonalcoholic fatty liver disease, metabolic syndrome, continuous metabolic syndrome score, obesity, adolescents