HDL-cholesterol levels, HbA1c, or BMI. LDL-cholesterol levels did not correlate with muscle mass (free-fat mass (%)), strength, function, or risk of falls. Similarly, HDL-cholesterol levels did not correlate with muscle function or falls risk. Cholesterol ratio, obtained by dividing total cholesterol by HDL-cholesterol levels, was significantly higher in individuals with CRP levels above 3 mg/L. Interestingly, when compared to normal values, individuals with triglycerides above 150 mg/dL showed a statistically significant decrease in muscle strength.

Conclusion

From the biochemical measured parameters, our data showed that only high triglycerides levels positively correlated with sarcopenia risk, demonstrated by reduced muscle strength. While cholesterol ratio positively correlated with increased inflammation, blood cholesterol levels seem to be independent factors regarding sarcopenia prevalence.

Correlation between sarcopenia and atherosclerosis/cardiovascular risk factors in the elderly.

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Introduction

Sarcopenia is the age-related loss of skeletal muscle mass, strength and function. Uncontrolled diabetes, obesity, chronic inflammation and lipid abnormalities, cause decreases in muscle strength, which contributes to disease-related morbidity.

Objectives

The main goal of this study was to correlate the prevalence of sarcopenia with atherosclerosis and cardiovascular risk factors, mainly estimated by cholesterol, triglycerides, C-reactive protein (CRP) and HbA1c levels, in the elderly.

Methodology

A quantitative observational cross-sectional study was performed in a convenience sample of individuals aged over 60 years old recruited non-randomly. Main study variables were body composition (seca® mBCA515), muscle strength (peak torque, Humac NORM isokinetic dynamometer), risk of falls (TUG test), muscle function (LEFS) and lipids, inflammation and glycaemic profile (cobas b101-Roche®).

Results

Total cholesterol levels fully correlated with LDL and non-HDL cholesterol, and partially with triglycerides, but not with