PHASE ANGLE IS ASSOCIATED WITH SARCOPENIA AND ITS COMPONENTS IN PATIENTS WITH CHRONIC HEPATITIS C

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Rationale: Sarcopenia is a remarkable finding in patients with chronic hepatitis C (CHC). However, the potential factors behind the skeletal muscle loss have not been completely clarified. We evaluate independent associations between host-, disease-, nutritional- and virus-related factors with sarcopenia and its components [appendicular muscle mass index (ASMI) and handgrip strength (HGS)]. Additionally, we appraised the association between sarcopenia and Bioelectrical Impedance Analysis (BIA)-derived phase angle (PhA).

Methods: Ninety outpatients with CHC (mean age, 49.9 $\pm$ 11.3yrs.; 73.3% males; 67.8% non-cirrhotic; 32.2% with compensated cirrhosis) underwent scanning of ASM and bone mass by dual-energy X-ray absorptiometry. Sarcopenia was defined as the presence of both low ASMI and low HGS according to the European Working Group on Sarcopenia in Older People criteria. Osteopenia and osteoporosis were defined according to the World Health Organization criteria. The International Physical Activity Questionnaire was used to determine the physical activity level. Associations were investigated by logistic and linear regression models.

Results: Sarcopenia, low ASMI and low HGS were found in 5.6%, 12.2% and 17.8% of the patients, respectively. In the multivariate analysis, low ASMI and sarcopenia were positively associated with low bone mass and inversely associated with PhA. Low HGS was inversely associated with raw BIA-derived measurement. When we considered PhA as dependent variable, this nutritional parameter was independently associated with age, male sex, diabetes mellitus and sarcopenia. PhA was positively correlated with ASMI ($r = 0.30$; $P = 0.04$), irrespective of the sex.

Conclusion: PhA may be considered a simple and reliable nutritional marker of skeletal muscle status in patients with CHC. The appraisal of muscle quality especially before the onset of significant liver fibrosis, is an issue of utmost relevance in these patients.

Disclosure of Interest: None declared