

PO45. DESCRIPTION OF INDICATORS OF THE FORCE-TIME CURVE OF HANDGRIP STRENGTH IN A PORTUGUESE SAMPLE

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INTRODUCTION: Handgrip strength (HGS) is a simple, cost-effective indicator of muscular strength, used in the diagnosis of sarcopenia, undernutrition, and physical frailty. Typically, the maximumHGS value is used, however recent evidence suggests the exploration of new indicators provided based on the force-time curve to achieve a more comprehensive assessment of muscle function, without complicating the procedure.

OBJECTIVES: To describe indicators of the force-time curve of HGS in a Portuguese community-dwelling sample, and to verify if there are differences between sexes.

METHODOLOGY: A cross-sectional study with a convenience sample aged ≥ 18 years was conducted. HGS was assessed using the GripWise dynamometer whose software provides a force-time curve. The indicators analyzed were: maximumHGS, minimumHGS, time to maximum HGS, difference between maximum force and minimum force HGS and difference between time to maximum and to minimum time HGS.

RESULTS: $n=208$ (65.4%) women and $n=110$ (34.6%) men were evaluated. The maximumHGS (kgs, [M(SD)]) in women was 23.5 (4.8) and in men 40.5 (7.9), <0.001 , while the minimumHGS (kgs, [M(SD)]) in women was 15.1 (4.6) and in men 27.3 (8.3), <0.001 . The time until reaching the maximum HGS (s, [Me [Q25; Q75]]) in women was 2.14 [1.56; 3.44] and in men it was 2.81 [1.98; 4.36], $p=0.004$. Difference between maximum force and minimum force HGS (KgF, [Me [Q25; Q75]]) in women was 8.08 [6.28; 10.53] and in men it was 12.53 [9.35; 16.55], $p<0.001$. A difference between time to maximum and to minimum time HGS (s, [Me [Q25; Q75]]) in women was 12.88 [11.60; 13.49] and in men it was 12.21 [10.64; 13.07], $p<0.004$.

CONCLUSIONS: There were significant differences between the sexes in all HGS indicators evaluated. This work is a first step to describe the impact of indicators on the assessment of muscle function and health parameters, which needs to take into consideration sex.

PO46. RELAÇÃO ENTRE A INGESTÃO ALIMENTAR E O RISCO DE DESENVOLVIMENTO DE SARCO-PENIA EM IDOSOS INSTITUCIONALIZADOS EM ESTRUTURAS RESIDENCIAIS PARA PESSOAS IDOSAS (ERPI'S)

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INTRODUÇÃO: A sarcopenia é definida como uma doença muscular progressiva e generalizada, caracterizada pela redução da força muscular e da qualidade/quantidade da massa muscular e/ou desempenho físico. Apesar do envelhecimento ser uma causa comum da sarcopenia, diversos fatores influenciam o aparecimento ou progressão desta patologia, nomeadamente a ingestão proteica.

OBJETIVOS: Relacionar a ingestão proteica, o risco de sarcopenia e a sarcopenia provável em idosos institucionalizados em ERPI's.

METODOLOGIA: Estudo observacional, transversal e analítico. A amostra não probabilística foi constituída por 61 utentes, com pelo menos 65 anos, residentes em ERPI's das Santas Casas da Misericórdia de Vila de Rei e Vale de Cambra. Para recolha de dados, recorreu-se ao questionário SARC-F, à aferição da força de preensão palmar e ao inquérito alimentar às 24 horas anteriores.

RESULTADOS: Os resultados do presente estudo demonstraram que um aporte proteico inferior às RDA de 0,8g/kg/dia se correlaciona com o aumento do risco de desenvolvimento de sarcopenia e com a baixa força de preensão. Por outro lado, o género não se correlacionou com nenhuma das variáveis descritas.

CONCLUSÕES: É importante desenvolver estratégias para aumentar a consciência pública relativamente a esta patologia e atuar atempadamente e de forma preventiva. Um aporte proteico personalizado e adequado a cada indivíduo é determinante na melhoria desta condição e, consequentemente, no bem-estar e na qualidade de vida do idoso.

PO47. THE LINK BETWEEN BREAST CANCER TREATMENT TOXICITY AND GUT MICROBIOTA: A PRELIMINARY STUDY

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INTRODUCTION: Breast cancer (BC) is the most prevalent cancer among women worldwide. Although neoadjuvant chemotherapy (NAC) is one of the possible treatment approaches, it is associated with several adverse outcomes. Evidence suggests that gut microbiota (GM) may play a role in modulating chemotherapy-induced toxicity, but this connection has been insufficiently explored in BC.

OBJECTIVES: This preliminary study aimed to examine the potential relationship between the initial GM composition of BC (subtype HR+(hormone receptor)/HER2) patients and NAC-related toxicity, evaluated over a 3-month treatment period.

METHODOLOGY: Treatment involved a combination of anthracyclines, cyclophosphamide and paclitaxel. Before the beginning of the anticancer therapy, participants provided one stool sample, as well as information regarding their general and clinical information, biochemical analysis and adherence to the Mediterranean Diet. GM was analysed through Next Generation Sequencing (NGS) analysis. Treatment toxicity was assessed using Common Terminology Criteria for Adverse Events (CTCAE): the highest mean grade was recorded for each adverse event, during the 3-month treatment period, and all the toxic effects experienced by participants at the end of the study were also documented. A Toxicity Score was calculated for each participant, according to the number of adverse events experienced during the study.

RESULTS: Eleven patients were enrolled in the study, with a mean age of 51 ± 11 years. It was found that Alpha-diversity and Richness were potentially negatively and positively correlated with the incidence rate of toxicities, respectively. *Bifidobacterium* and *Ruminococcus* were overrepresented in the GM of participants experiencing more adverse events. In contrast, in individuals with fewer treatment side effects, *Bacteroides*, *Blautia*, *Clostridium*, *Faecalibacterium*, and *Prevotella* exhibited higher abundance.