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PhD in Clinical Nutrition

Research Area: Effects of an anti-inflammatory diet in patients with Fibromyalgia

Title: Effects of an anti-inflammatory diet in disease assessment parameters, inflammatory markers, and quality of life of patients with Fibromyalgia

Fibromyalgia (FM) is a chronic non-degenerative disease, whose nutritional therapy seems controversial. Several studies point to the existence of a change in the composition of the intestinal microbiota in these patients, suggesting an association between the latter and the FM symptoms. In addition, the high prevalence of gastrointestinal changes in these patients appears to be due to the presence of SIBO (Small Intestinal Bacterial Overgrowth), whose treatment protocol advocates a low intake of foods rich in FODMAPs (fermentable oligo, di- and monosaccharides and polyols) for a 4 weeks period. Finally, the increase of interleukin-6 (IL-6), described by some authors, suggest a low grade generalized inflammation. The aim of this intervention is to analyze the effects of an anti-inflammatory diet on the assessment parameters, inflammatory markers and quality of life of FM patients. A sample of 100 female patients diagnosed with FM, followed-up at Instituto Português de Reumatologia (IPR) in Lisbon, will be distributed randomly in two groups. Group 1 will adopt an anti-inflammatory diet, which is characterized by the exemption of the intake of potentially inflammatory foods, namely sugar, dairy products and gluten, over a consecutive period of 3 months. During the first month, a low diet in foods rich in FODMAPs will be implemented, along with the anti-inflammatory diet, followed by the reintroduction of all fruits and vegetables over a consecutive period of 2 months, for a total of 3 months of intervention. General recommendations for healthy eating will be provided to Group 2, in accordance with the World Health Organization (WHO). The following evaluation questionnaires will be applied: Revised Fibromyalgia Impact Questionnaire (FIQR), Visual Analogue Pain Scale (EVA_Dor), Brief Pain Inventory (BPI), Visual Analogue Scale from a list of common gastrointestinal and extraintestinal symptoms in FM (EVA_GI), Short Form 36 (SF-36) and Pittsburg Sleep Quality Index (PSQI). The determination of IL-6 will be performed. Data on age, physical activity and anthropometric parameters, such as waist circumference, height and weight, will also be collected. The body fat mass, lean mass and water will be evaluated by bio-impedance. Based on the subsequent statistical treatment, it is expected to identify concretely if this nutritional intervention changes the inflammatory parameters and quality of life of patients with FM.

Keywords: Fibromyalgia, Anti-inflammatory diet, Pain

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