THU0474 PREVALENCE OF TIREOIDIAN DISORDERS IN A POPULATION WITH FIBROMYALGIA

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Background: Fibromyalgia (FM) is a clinical syndrome characterized by diffuse pain associated with other symptoms such as fatigue, sleep disturbance and mood. It presents a series of differential diagnoses such as thyroid disorders, hypoparathyroidism, systemic inflammatory diseases and myopathies. Hypothyroidism is a disease with a prevalence of 4-6% of the population, having many symptoms in common with FM, such as fatigue, mood changes, constipation, and diffuse pain in some cases.
Objectives: The purpose is to evaluate the association between FM and thyroid disorders.
Methods: A retrospective monocentric case-control study in a tertiary hospital, with patients and controls having regular follow-up. The cases were composed of women over 40 years old, diagnosed with FM by the criteria ACR 1990 and ACR 2010, without autoimmune disease or other confounding diseases for pain. The control consisted of women over 40 years old, without autoimmune diseases. Laboratory tests included TSH and free T4 in all patients. Evaluation by ANA, anti-TPO and anti-thyroglobulin antibodies, only when appropriate. The sample was classified into euthyroid, clinical and subclinical hyperthyroid, clinical and subclinical hypothyroid. Statistical analysis included Fischer's T-tests and others where appropriate. The p value was significant when ≤ 0.05.
Results: The sample consisted of 142 patients (median age of 58 years) and controls with 136 patients (median age of 67 years). Patients with FM had a greater number of thyroid disorders (31.7%) than controls (14.7%) (p = 0,001). FM patients had a TSH higher than the controls (mean 9.06 *vs* 2.96; p = 0,0026), with a lower free T4 (mean 1.06 *vs* 1.31; p = 0,0001). ANA, anti-TPO and anti-thyroglobulin antibodies analysis showed no differences between both groups (p = 1; p = 0,08, p = 1; respectively), when performed. Because of the small difference in median age between the two groups, a sub analysis was performed separating patients between the ages of 40 to 60 years and over 60 years. The same results previously seen were found.
Conclusion: Patients with FM had a greater association with clinical hypothyroidism. However, we did not find any association with autoantibodies in our casuistic.

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THU0475 THE EFFECT OF SUPERVISED DYNAMIC EXERCISE PROGRAM ON SOMATOSENSORY TEMPORAL DISCRIMINATION IN PATIENTS WITH FIBROMYALGIA SYNDROME

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Background: Somatosensory temporal discrimination (STD) is the detection of two separate stimuli applied to the body over a short period of time (1). It is thought that STD provides information about the central processing of sensory stimuli. It has recently been reported that STD is impaired in fibromyalgia syndrome (FMS), which is considered to be the prototype of central sensitization syndromes (2).
Objectives: To evaluate the effect of dynamic exercise program on STD in patients with FMS.
Methods: The study included 48 female FMS patients diagnosed according to the ACR 2010 classification criteria who applied to outpatient clinics of Physical Medicine and Rehabilitation Department. Patients with inflammatory rheumatic disease, peripheral and central neurological disease, history of malignancy and cardiac problems, and those who started a new medical therapy or exercise program related to FMS in the last 3 months were excluded. Before the study, local ethics committee approval was obtained. The study was designed as a prospective, randomized, single blind and controlled study. The patients were divided into two groups. Those included in the supervised exercise group (SEG) were given an exercise program that consisted of submaximal aerobic exercise (treadmill) and low-medium resistant isotonic exercises under the supervision of a physiotherapist, 1-hour per day, 3 days in a week for 4-weeks. Those included in the home exercise group (HEG) were given a home exercise program that consisted of low-to-medium resistance isotonic exercises and aerobic exercises 1-hour per day, 3 days in a week for 4-weeks. All patients were evaluated at baseline and after 4 weeks of treatment. Visual analogue scale (VAS) for pain, hospital anxiety and depression scales (anxiety: HADA, depression: HADD), fibromyalgia effect questionnaire (FIQ), symptom severity scale (SSS) were used for clinical assessment. Additionally somatosensory temporal discrimination threshold (STDT) was measured by a blinded investigator. In order to achieve a difference of 25ms in STDTs between two groups, we calculated 20 FMS patients per group (power: 80%, alpha: 0.05 two sided) (2). However, 24 patients were included in the study because of the 20% chance of discontinuation. For the demographic, basal clinical and neurophysiological comparisons between the two groups, the independent sample-T test was used for the normally distributed data, and the Mann Whitney U test was used for the non-normally distributed data. In order to assess the effect of treatment on outcome measures, 2-way repeated measures of variance analysis (Treatment group x time) was used. Intention to treat analysis was performed.
Results: There were statistically significant changes in the VAS, HADA, HADD, FIQ and SSS scores and STDTs in both groups after treatment programs (p <0.001). In the 2-way repeated measures of variance analysis, the treatment group x time interactions for VAS, HADA, HADD, FIQ and SSS scores were found to be significant in favor of the supervised exercise group (p <0.05). However, no statistically significant interaction (treatment group x time) was found for STDT (p: 0.18).
Conclusion: We demonstrated that STD improves with exercise in patients with fibromyalgia for the first time. However, this change was similar in both groups. Additionally, we showed that dynamic exercise program ameliorates pain, psychological status, function and other symptoms related to fibromyalgia syndrome.

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THU0476 NEW PARADIGMS IN FIBROMYALGIA RESEARCH: INFLAMMATORY CELLS-TO-LIPOPROTEINS RATIOS AS PREDICTIVE AND DISCRIMINATOR MARKERS

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Background: Fibromyalgia (FM) is a chronic idiopathic disease characterized by diffuse pain, fatigue, sleep disturbances, stiffness, anxiety and depression. Compared to healthy subjects. FM patients have significant high ratios of mean platelet volume, Neutrophil-to-lymphocyte, and platelet to lymphocyte. Fibromyalgia showed a significant abnormal lipid profile characterized by higher levels of fasting serum triglyceride and cholesterol.
Objectives: This study aimed to derive ratios from the circulating inflammatory cells and serum lipoprotein levels as markers of disease-severity in newly diagnosed fibromyalgia.
Methods: We carried out a cross-sectional study with 90 newly-diagnosed fibromyalgia patients and 25 aged-matched healthy subjects to determine the haematological indices and serum lipoprotein profile. Revised

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