MIGHT A 12-WEEK AEROBIC EXERCISE INTERVENTION IMPROVE PATIENT-REPORTED OUTCOMES IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS?

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REFERENCES:

BACKGROUND: Despite the relevant advance in treatment options and survival rates in systemic lupus erythematosus (SLE), patient’s quality of life (QOL) and other patient-reported outcomes (PROs) do not seem to improve accordingly [1]. PROs provide valuable information about the patient’s perceptions across a variety of domains that should be considered in a successful management of this condition [2]. Exercise seems to be a safe way to improve cardiorespiratory fitness [3], and could have also a positive influence on PROs in SLE.

OBJECTIVES: To evaluate the effects of 12-week aerobic exercise intervention on PROs (QOL, depression, stress, and fatigue) in women with SLE.

METHODS: These are secondary outcomes of a non-randomized clinical trial [NCT03107442]. A total of 58 participants with SLE were assigned to exercise group (n=32) or control group (n=26). The exercise intervention followed the American College of Sports Medicine guidelines, and consisted of 12-week progressive aerobic exercise on a treadmill (2 sessions/week) between 40%-75% of the individual’s heart rate reserve [3].

Attendance of >75% was set for inclusion in the analyses. The control group received verbal information about a healthy lifestyle. At baseline, and at week 12, PROs were assessed including the physical and mental summary scores of the 36-item Short-Form Health Survey (SF-36), depression (Beck Depression Inventory; BDI-II), perceived stress (visual analogue scale) and fatigue (Multidimensional Fatigue Inventory; MFI-20).

BACKGROUND: Lupus patients that were participants in a study that evaluated the effects of 12-week aerobic exercise on arterial stiffness, inflammation, and cardiorespiratory fitness in women with systemic lupus erythematosus. Rheum Dis Clin. Elsevier; 2016;42: 253–263.

RESULTS: The median age was 56.12 ± 13.7 years, 94.4% women and median disease duration 10 years. The FA ω-3 and ω-6 intake was 0.43 g/day and 3 g/d, respectively. The levels of ω-6 (LA+AA) 205 g/mL, and total ω-6 (LA+AA) 205 g/mL. We did not find a correlation among serum levels and food intake. Thus, further analyses were focused on serum results. We found a negative correlation between ω-6 and the OSDD (r = -0.42, p = 0.01) and ESSDAI (r = -0.26, p = 0.03) as well of DHA and ESSDAI (r = -0.30, p = 0.01). The rest of the variables were not associated. In tears, there was a positive correlation of AA and CCL2 (r = 0.48, p = 0.04), whereas in saliva, we observed a negative correlation between ω-6 and total ω-3 (ω-6+DHA) with CCL2. We also observed a negative correlation between total ω-6 (LAA+AA) and IL-21, and the ω-6/ω-3 ratio with IL-22.

CONCLUSION: Our pSS patients had deficient FA omega intake. We observed lower ocular symptoms, lower ESSDAI scores, and salivary levels of CCL2 among patients with higher levels of FA ω-3. Our study suggest that low serum levels of ω-3 might be implicated in the perpetuation of chronic inflammation.

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