E-Poster

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Effect of Probiotics on The Nutritional Status in Chronic Spinal Cord Injured Patients: Randomized, Controlled, Double-Blind Trial

Topic: Miscellaneous

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BACKGROUND

Spinal Cord Injury (SCI) is associated with a disturbance of the intestinal microbiota (IM). The IM has a role of digestion, the production of vitamins B, K and short-chain fatty acids and the absorption of vitamins and nutrients. Probiotics, known to enhance gut health and nutrient absorption may play a role in addressing malnutrition widely present in this population.

METHODS

We conducted a double-blind placebo-controlled trial, including 49 chronic SCI patients divided into two groups: intervention group (n = 24) and control group (n = 25), each group received two capsules once a day for two months. The intervention group took the probiotic "Lactéol 340 mg" containing strains of Lactobacillus fermentum and Lactobacillus delbrueckii. The placebo group took the "placebo" capsules containing starch with the same pharmaceutical presentation as the probiotic. Neither the patient nor the doctor knew the content of the capsules administered. Baseline and two months assessment was made. Clinically, the mid upper arm circumference (MUAC) was taken, and biologically, the total protein, albumin, prealbumin and transferrin serum levels were assessed.

RESULTS

Mid upper arm circumference showed a significant improvement in the two groups ($p < 0.05$) without between group difference. Biologically, transferrin showed a slight but not significant improvement in the intervention group, but with a significant difference in between group analysis ($p = 0.05$).

The positive effect on MUAC in the two groups may be due to the trial effect so that patients became more motivated about regimen and rehabilitation. The significant difference of transferrin levels between groups may give minor evidence about the role of probiotics to address malnutrition, which is not the case of the other nutritional biomarkers.

CONCLUSION

Our findings may give minor evidence about the beneficial role that probiotics may have on nutritional status. Further investigations with a greater number of participants and maybe with distinct probiotic species, are necessary to more explore the role of this treatment on the nutritional status of SCI patients.

Statement of Disclosures

None

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