DOI: 10.1136/annrheumdis-2020-eular.536

FRI0609-HPR

NUTRIENTS INTAKE CONDITION RELATES TO MAINTENANCE LOW DISEASE ACTIVITY IN PATIENTS WITH RHEUMATOID ARTHRITIS DURING 6 YEARS: TOMORROW STUDY

Y. Matsumoto1,2, Y. Sugikawa3, M. Tada4, T. Okano5, K. Mamoto5, K. Inui5, D. Habu6, T. Koike1,3, 1Search Institute for Bone and Arthritis Disease (SINBAD), Shirahama Foundation for Health and Welfare, Shirahama, Japan; 2Osaka City University Graduate School of Human Life Science, Department of Medical Nutrition, Osaka, Japan; 3Osaka City University Medical School, Center for Seniors and Social Health Promotion, Osaka, Japan; 4Osaka City General Hospital, Department of Orthopaedic Surgery, Osaka, Japan; 5Osaka City University Medical School, Department of Orthopaedic Surgery, Osaka, Japan

Background: We have previously reported that nutritional intake status might relate to disease activity (1). Nutritional survey on prospective cohort study in rheumatoid arthritis (RA) patients and information about relationship between nutritional intake status and disease activity was very limited.

Objectives: This study aimed to obtain data from a cohort study for new nutritional therapy in RA patients.

Methods: We used TOMORROW cohort study data which conducted from years of 2010 to 2020. Two hundred and eight RA patients, and 205 non-RA sex and age matched controls were investigated, and we analyzed data from 2011 to 2017. Nutritional intake status was compared between who maintain lower disease activity during 2011 to 2017 (LDA group) and being higher disease activity even in 2011 to 2017 (non-LDA group). Disease activity was evaluated by DAS28-ESR in every year and nutritional intake status was surveyed by brief self-administered diet history questionnaire (BDHQ) in 2011 and 2017.

Results: In RA patients, the change value from 2011 to 2017 of iron (OR: 3.05), thiamin (OR; 2.50) and folic acid (OR; 2.37), thiamin (OR; 2.96) and folic acid (OR; 3.16) intake which adjusted by sex and age matched controls were investigated, and we analyzed data from 2011 to 2017. Nutritional intake status was compared between who maintain lower disease activity during 2011 to 2017 (LDA group) and being higher disease activity even in 2011 to 2017 (non-LDA group). Disease activity was evaluated by DAS28-ESR in every year and nutritional intake status was surveyed by brief self-administered diet history questionnaire (BDHQ) in 2011 and 2017. In RA patients, iron and folic acid intake in LDA group was significantly lower than control both in 2011 and 2017. Iron intake, age, rheumatoid factor and medication status were extracted as covariates. The analysis was done by logistic regression analysis.

Conclusion: The nutritional intake status might relate to disease activity in RA patients and decreased in non-LDA group over time, and these nutrients showed an association between beta-blockers and lower pain severity, and less opioid analgesic use in a secondary analysis of data for community dwelling adults with large-joint lower OA. This association, however, was not confirmed in a hospital-based study.

Methods: This was a cohort study using data from the UK Clinical Practice Research Datalink. Participants aged ≥40 years, in receipt of ≥2 β-blocker prescriptions within 60 days were matched by age, sex, and propensity score (PS) for β-blocker prescription to one control using greedy nearest neighbour matching. Participants with chronic painful conditions, contra-indications to β-blockers,