Objectives: The objectives of this study were to: compare serum FGF-23 levels between RA patients and healthy controls and investigate possible associations between FGF23 as surrogate measures of cardiovascular disease.

Methods: This cross-sectional study was performed in Vega-Baja Hospital, Orihuela (Spain) from November 2016 to May 2018. We prospectively enrolled 63 consecutive women patients affected by RA and followed at the Vega-Baja Hospital (Orihuela, Spain) and 65 matched healthy women controls. All patients included in this study had normal serum creatinine (Cr) levels and met the 2010 American College of Rheumatology/European League Against Rheumatism (ACR/EULAR) criteria for RA. Total cholesterol and triglyceride levels were determined by fully enzymatic techniques. High-density lipoprotein (HDL) was determined after precipitation of apolipoprotein B (apoB)-containing lipoproteins with magnesium sulfate and dextran sulfate. Low-density lipoprotein (LDL) was calculated using the Friedewald formula. Serum FGF-23 was analyzed using ELISA.

Results: The mean serum total cholesterol, HDL-C, LDL-C, and triglycerides were 212.74±41 mg/dL, 69.92±19.45 mg/dL, 120.18±29.24 mg/dL and 112.93±55.67 mg/dL, respectively.

There was no significant differences in FGF-23 levels between the patients and controls [85.7 (5.2-275.4) vs. 81.2 (2.6-269.9), pg/ml; $P=0.4316$], but we found that FGF23 levels were positively associated with total cholesterol ($p < 0.05$), low-density lipoprotein (LDL-c) level ($p < 0.05$) and smoking ($p = 0.008$) in patients with RA.

Conclusion: We report an association between circulating FGF-23 and LDL-c in RA patients, representing a novel pathway linking high FGF23 to an increased cardiovascular risk.

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THU0122 THE LACK OF EXERCISE HABIT WAS A RISK FACTOR FOR CLINICAL FRACTURES IN PATIENTS WITH RHEUMATOID ARTHRITIS -TOMORROW STUDY-

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Background: Patients with rheumatoid arthritis (RA) might be considered to be at increased risk of falls and fractures. However, little is known about the exact properties of risk factors for clinical fractures in patients with RA. Recently, the disease activity of RA has been more satisfactorily controlled by the "treat-to-target" strategy, including the use of biologics. Given this new era, it is important to accurately estimate the incidence of clinical fracture in patients with RA and to elucidate contributing risk factors.

Objectives: The objective of this study was to evaluate the incidence of clinical fractures and associated risk factors in 208 patients with RA and in age- and sex-matched 205 controls (Cont) who participated in the TOMORROW (Total Management Of Risk factors in Rheumatoid arthritis patients to lower morbidity and mortality) study, a 10-year cohort study that started in 2010 in Japan. This research was conducted using TOMORROW study data for 7 years.

Methods: We evaluated the incidence of clinical fractures by self-administered questionnaire every year and confirmed them by medical records. We also collected information about daily walking time and weekly exercise time, general health status, body composition including bone mineral density, lean body mass, fat mass and laboratory data at baseline. We compared the frequency of the incidence of clinical fractures in RA patients and Cont for seven years and analyzed risk factors for clinical fractures in RA patients using multivariate regression analysis.

Results: A total of 208 patients with RA (mean age: 54.9 ± 10.1 years, female: 85.1%, mean disease duration 14.0 ± 11.8 years) and 205 Cont (mean age: 56.3 ± 10.4 years, female: 83.9%) were finally analyzed. The number of clinical fractures were no differences between RA and Cont group (RA: 47, Cont: 38, $p=0.37$). Comparing RA patients with or without the clinical fractures, age ($p=0.006$), disease duration ($p=0.005$), the average glucocorticoid dose ($p<0.001$), the average number of falls ($p<0.001$), and the average DAS28-ESR of seven years ($p=0.029$) were higher in patients with the incidence of clinical fractures. Multivariate logistic regression analysis revealed that RA was not a risk factor (OR: 0.655, 95%CI: 0.296 – 1.448, $p=0.296$), and the lack of exercise habit (OR: 2.221, 95%CI: 1.208-4.082, $p=0.001$) and glucocorticoid use (OR: 2.279, 95%CI: 1.036-5.015, $p=0.04$) were the risk factor for clinical fractures. Multivariate logistic regression analysis in RA patients, the lack of exercise habit represented an independent risk factor for the incidence of clinical fractures (OR: 4.466, 95%CI: 1.212-16.454, $p=0.025$).

Conclusion: Seven years of data from the TOMORROW cohort study including both RA patients and age- and sex-matched Cont showed no difference in the incidence rate of clinical fractures between RA and Cont groups. Multivariate logistic regression analysis revealed that RA was not a risk factor. However, the lack of exercise habit was significantly associated with an increased frequency of the incidence of clinical fracture among RA patients.

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THU0123 FEMALES UNDERGO MORE TREATMENT CHANGES COMPARED TO MALES: ANALYSIS OF GENDER DIFFERENCES IN RHEUMATOID ARTHRITIS PATIENTS

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Background: Gender differences may contribute to treatment tailoring in rheumatoid arthritis (RA) patients. Observational data shows a trend toward worse disease activity and worse response to treatment in