biological therapies has not been investigated in detail, and little is known about the predictive value of sociodemographic and lifestyle factors. **Objectives:** To investigate the predictive value of a panel of potential predictors of death in a cohort of patients with RA followed for up to 12 years during the era of biological treatments. **Methods:** Outpatients with RA were recruited consecutively between July 2006 and July 2007 and followed in routine care with prospective registrations in the DANBIO registry until death or August 30th 2018, whichever occurred first. Baseline variables considered to be potential predictors were: disease activity, disease duration, IgM-rheumatoid factor (IgM-RF), radiographic status (erosive disease yes/no) and medical therapy as well as patient-reported marital status, educational level, comorbid conditions, smoking, exercise, body mass index (BMI) and health assessment questionnaire (HAQ). Vital status and date of death were extracted from the Danish National Register. A cox proportional hazards model was used to estimate the hazard ratio for death for each of the potential predictors.

### Results:

3693 patients were recruited at baseline, 75% women, 77% IgM-rheumatoid factor positive, 65% with erosive disease, median (IQR) age 62 years (52-71), disease duration 7 years (3-15), DAS28 3.0 (2.2-3.9), HAQ 0.63 (0.25-1.25), 20% received a biological disease modifying anti-rheumatic drug (DMARD), 71% received a synthetic DMARD and 9% received no DMARD. The median (IQR) duration of follow-up was 11 years (9-11); 1041 patients (28%) died during follow-up. 640 patients were excluded from the regression model due to missing baseline data; these individuals were slightly (median of 3 years) older than those who entered, but with similar disease duration and disease activity. All baseline variables were statistically significant predictors in univariable analyses. Table shows hazard ratio estimates in the multivariable model which included 3053 patients; 762 (25%) deaths. IgM-RF positivity, higher HAQ score, glucocorticoid therapy, smoking (current and former) and two or more comorbid conditions were predictors of death. Low BMI was a borderline significant predictor for death. Female sex, weekly exercise and cohabiting decreased the risk of death.

### Conclusion:

In a large cohort of RA patients followed for a decade in the era of biological treatments, we identified strong clinical (high HAQ, comorbidity), treatment related (glucocorticoid last month), sociodemographic and lifestyle related (male sex, living alone, smoking, physical inactivity, low BMI) risk factors for death. In the effort to prevent a poor long term outcome in patients with RA, this study provides new insight into potentially modifiable baseline variables.

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ASSOCIATION OF BODY COMPOSITION, PHYSICAL ACTIVITY AND PHYSICAL PERFORMANCE WITH KNEE CARTILAGE THICKNESS AND SUBCHONDRAL BONE AREA IN YOUNG ADULTS

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Background: Body composition, physical activity and physical performance may play roles in the incidence of knee osteoarthritis. However, the effects of body composition, physical activity and physical performance in knee cartilage thickness and subchondral bone area in young adults were unknown.

Objectives: To describe associations of body composition, physical activity and physical performance with knee cartilage thickness and subchondral bone area in young adults.

Methods: Body composition, physical activity and physical performance were measured 4.5 years prior to knee magnetic resonance imaging (MRI). Cartilage thickness and subchondral bone area of patella and lateral/medial femorotibial compartment were measured quantitatively from MRI. Total knee cartilage thickness was calculated as the weighted-average according to bone area of each compartment; total knee bone area was calculated as the sum of each compartment. Associations were assessed using linear regression analysis. Age, gender, height (if fat mass or lean mass was predictor) and BMI (if physical activity or physical performance measures were predictors) were examined as potential confounders and were included in the regressions. Mediator was identified using mediation analysis (Stata’s medeff command).

Results: Participants were aged 31-40 years, 48% were female (n=186). Greater lean mass, but not fat mass, was positively associated with total knee cartilage thickness (β=6.50 μm/kg, 95% confidence interval (CI): 0.86 to 12.13) and subchondral bone area (β=13.66 mm²/kg, 95% CI: 5.73 to 21.59). Physical performance measures were positively associated with knee cartilage thickness (β=2.36 μm/cm, 95% CI: 0.68 to 4.04, hand grip strength: 7.65 μm/kg, 1.53 to 17.77, physical work capacity: 1.04 mm/watt, 0.27 to 1.81) and subchondral bone area (long jump: β=4.25 mm/cm, 95% CI 0.68 to 7.50; hand grip strength: 19.89 mm²/kg, 8.23 to 31.55; leg strength: 5.00 mm²/kg, 1.25 to 4.50; physical work capacity: 1.04 mm/watt, 1.54 to 4.45). Mediation analysis suggested these associations were mediated by lean mass (effect mediated: 29-95%), Questionnaire based activity measures (including walking, moderate activity, vigorous activity and total activity) were not associated with total knee cartilage thickness or subchondral bone area.

Conclusion: Greater lean mass and better physical performance measures were associated with greater knee cartilage thickness and subchondral bone area in young adults, and the associations of physical performance were largely mediated by lean mass. These findings suggest lean mass may play an important role in maintaining knee joint health in young adults.

LEISHMANIASIS IN PATIENTS WITH CHRONIC INFLAMMATORY DISEASE TREATED WITH IMMUNOMODULATORS. MULTICENTER ANALYSIS

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Background: Patients with chronic inflammatory disease in treatment with immunosuppressants have an increased risk of opportunistic infections, including leishmaniasis.

Objectives: To describe a multicenter case series of leishmaniasis in patients with chronic inflammatory diseases treated with immunosuppressants. To analyze factors related to the infection.

Methods: Observational retrospective study. We reviewed the clinical history of patients with chronic inflammatory diseases treated with immunosuppressants, who were diagnosed with leishmaniasis between 2007 and 2018. Demographic (age, sex) and clinical (type and time of evolution of the inflammatory disease, comorbidities, current treatment, leishmaniasis form) variables were collected. Immunosuppressant withdrawal, subsequent reintroduction and recurrence were recorded. We analyzed differences in clinical presentation related to anti-TNFα treatment. Statistical analysis were performed using SPSS 22.0 program.

Results: 55 cases were collected. 58.2% were men and the average age was 57.2 (SD 1.9) years. Twenty-one patients had spondyloarthropathy, 17 rheumatoid arthritis, 14 inflammatory bowel disease, 1 systemic lupus erythematosus, 1 Behçet and 1 uveitis. The average duration of the disease was 11.4 (SD 1.4) years and 30.9% of patients had other causes of immunosuppression. Thirty-eight patients received treatment anti-TNFα (19 infliximab, 11 adalimumab, 5 golimumab, 2 certolizumab and 1 etanercept). 15 with DMARD (14 methotrexate, 1 lefunomide), 1 with tocilizumab and 1 with azathioprine. 27.3% patients received corticoids. 52.7% were on non-anti-TNFα drugs and in those treated with glucocorticoids. Most of the recurrences were associated with mucocutaneous form.

Conclusion: In our series, the majority of cases of leishmaniasis occurred in patients treated with anti-TNFα, but non-anti-TNFα patients developed more serious forms. It’s important to keep in mind this infectious complication in daily clinical practice.

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