principles of good clinical practice. The study was conducted in the Immunology Laboratory of the Bulgarian Academy of Sciences, Sofia through ELISA. Statistical processing includes descriptive and correlation analyses, with statistical significance p < 0.05.

Results: The level of TNF-a in the serum of patients with knee osteoarthritis is 6,01 ± 0.54 (ng/ml) (x ± Sd), the level of TNF-a in the synovial fluid is 17.089 ± 0.85 (ng/ml) (x ± Sd) (t = 4.54 (df 49), Sig. (2-tailed) = 0.000. The level of Il-17A in the serum of patients with knee osteoarthritis is 4,23 ± 0.23 (ng/ml) (x ± Sd), the level of IL-17A in the synovial fluid is 11.231 ± 0.9 (ng/ml) (x ± Sd) (t = 4.87 (df 49), Sig. (2-tailed) = 0.000. The level of TNF-a in the serum of patients with psoriatic arthritis is 42.707 ± 0.216 (ng/ml) (x ± Sd), the level of TNF-a in synovial fluid of patients with psoriatic arthritis and effusion is 61,84 ± 81,21 ng/ml and in healthy controls is 0.82 ± 0.01 ng/ml in serum. The level of TNF-a and IL-17A in the synovial fluid of patients with psoriatic arthritis was higher than that of patients with gonarthrosis and healthy controls (p < 0.05). The level of TNF-a and IL17A in the synovial fluid of patients with knee osteoarthritis correlated positively with the disease activity assessed by WOMAC (Rx,y = 0.92).

Conclusion: Serum and synovial fluid levels of TNF-a and IL-17A in patients with knee osteoarthritis are significantly higher in patients with high disease activity according to the WOMAC scale, which is associated with more severe joint destruction.

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INVESTIGATION OF THE FACTORS ASSOCIATED WITH THE INCIDENCE AND SEVERITY OF COVID-19 IN NURSING HOME. RESULTS FROM THE SENIOR COHORT

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Objective: Since the beginning of the pandemic, nursing homes have been severely affected with a significant number of infections and deaths. Particularly because of the difficulty in accessing nursing homes during the pandemic, few studies have examined the factors associated with the incidence of COVID-19 in these settings. To investigate the relation between frailty, nutritional status, muscle strength and the COVID-19 incidence and severity among nursing home residents.

Methods: In the SENIOR (Sample of Elderly Nursing Home Individuals: An Observational Research) cohort, frailty, nutritional status and muscle strength were assessed according to Fried's criteria, Mini Nutritional Assessment and grip strength, respectively, during the last two years of follow-up (i.e., 2018–2019). COVID-19 data were collected retrospectively from participants' medical records in 2022. Logistic regressions, adjusted for covariates, were performed to assess the potential association between these three geriatric conditions and COVID-19.

Results: 191 participants of the SENIOR cohort were still alive at the beginning of the pandemic, of these 116 were excluded from this study due to insufficient data (59.7%) and loss of follow-up (1%). In total, 75 participants were included with a mean age of 87±9.93 years and a proportion of 74.7% women. Among them, 42 older people were tested positive for COVID-19 and 18 experienced severe symptoms or died from it. No association between frailty, nutritional status, grip strength and the COVID-19 incidence and severity was highlighted.

Conclusion: No variable was significantly associated with the incidence of COVID-19 in nursing homes. The findings of our investigation must be considered with great caution due to some methodological limitations (i.e., small sample size, specific population, missing cofounding variable). Further research is needed to clarify the role of these factors in the context of COVID-19.

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THE ASSOCIATION BETWEEN ANTIRESORPTIVE THERAPY, FRACTURE RISK AND MORTALITY IN OSTEOPOROTIC PATIENTS WITH CONCURRENT TYPE II DIABETES MELLITUS: A LARGE, POPULATION-BASED COHORT STUDY

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Objective: Despite having higher BMD, patients with type 2 diabetes mellitus (T2DM) are at an increased risk of fracture. Anti-resorptive therapies are the mainstay of osteoporosis (OP) management, however, evidence of their efficacy in the T2DM population is limited. We aimed to assess the association between anti-resorptive treatment and the risk of major osteoporotic fracture (MOF) and all-cause mortality in osteoporotic patients with T2DM.

Methods: A population-based cohort in a large state-mandated health fund in Israel including patients with OP and T2DM was conducted. We extracted patient demographic data, DM history, OP history and presence of comorbidities known to increase fracture risk. Demographic data were expressed as means±standard deviation and differences were analyzed using student's t-test and chi^2. Standardized fracture risks were assessed using the Cox proportional hazard model.

Results: Our cohort consisted of 27503 diabetic and osteoporotic patients, 68% were female. The mean follow up was 10.6±9.8 years. The mean age at DM diagnosis was 65.8±8.8 years and mean age at OP diagnosis was 71.38±9.54 years, with a mean duration of diabetes of 6.9±5.4 years, and a mean HbA1c of 6.8±0.8 at OP registry entry. The mean BMI was 29.3±5.5, mean FN BMD T-score − 1.8±1.2, HIP BMD T-score − 1.3±3.3, and LS BMD T-score − 1.2±1.6. The Charlson Comorbity Index (CCI) was 3.6± 2.5. A total 13343 (45.5%) patients received anti-resorptive treatment; 30.2% were treated with alendronic acid, 14.3% with risedronic acid, 2.3% with zoledronic acid and 1.8% with denosumab. A total of 14719 (46.4%) patients sustained a MOF, 62.5% non-treated patients vs. 37.5% treated patients (p<0.001). A multivariate analysis showed a significant fracture risk reduction in treated patients HR 0.495 (0.477–0.514, P<0.001) after adjustment for age, BMI, BMD, CCI, HbA1c levels, duration of diabetes and insulin treatment. There was also a significant reduction in all-cause mortality (HR 0.679, 0.586–0787) and cardiovascular events (HR 0.824, 0.755–0.900) in patients with HbA1c under 8%.

Conclusion: Our data suggests that anti-resorptive treatment significantly reduces the incidence of major osteoporotic fractures in diabetic patients, independently of HbA1c levels and diabetes duration. It was associated with a significant reduction in cardiovascular events and mortality in patients with HbA1c under 8%.