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CORRELATION OF THE RISK OF OSTEOPOROTIC FRACTURE IN 10 YEARS CALCULATED BY THE FRAX METHOD IN RHEUMATOLOGICAL AND ENDOCRINOLOGICAL DISEASES

Cristina Lauren Carpinetti^{1,*}, Cláudia Holanda Ribeiro¹, Márcio Felipe de Freitas¹, Angélica Ferreira de Sá Roris¹, Deborah Laredo Jezini¹, Sandra Lúcia Euzébio Ribeiro¹

¹Universidade Federal do Amazonas, Manaus (AM), Brazil.

*Corresponding author: crislaurencarpinetti@gmail.com

BACKGROUND

Osteoporosis is characterized by a decrease in bone mass and deterioration of the microarchitecture of the bone tissue, increasing susceptibility to fractures, thus increasing morbidity and mortality. In Brazil, the prevalence of fractures is 11 and 23.8%. However, only 6% of the adult population is aware of their diagnosis of osteoporosis. The Fracture Risk Assessment Tool (FRAX) facilitated the review of the risk of bone fractures. Fracture Risk Assessment Tool Brazil (FRAX-Brazil) is an algorithm that calculates the probability of bone fractures, based on clinical aspects and bone densitometry (DXA) for femur and other bones in the next 10 years. The objective of the present research was to identify the fracture risks of patients with rheumatological and endocrinological diseases through FRAX-Brazil.

MATERIALS AND METHODS

Cross-sectional study from September/2019 to September/2020. The study included people of both sexes and age ≥ 40 with diagnoses of rheumatoid arthritis (RA), ankylosing spondylitis (AS), psoriatic arthritis (PSA), fibromyalgia (FM) and/or type 2 diabetes mellitus (T2D) and control group healthy (CG). All data necessary to use the FRAX-Brazil online platform were collected to calculate the risk of major osteoporotic and hip fractures in 10 years, with results analysed using measures of position and variability.

RESULTS

From 255 patients evaluated, the mean age was 54.45 years old, of which 66.27% were female gender and 33.73% male. Of these 255: 68 had RA, 27 AS, 12 PSA, 45 FM, 50 T2D and 100 healthy control (CG). Of these, 37 (14.51%) had a high risk of osteoporotic fracture requiring therapeutic intervention, 127 (49.80%) had a medium risk, requiring DXA for clarification and 91 (35.69%) had a low risk. The risks obtained for patients with rheumatological and endocrine diseases were generally medium for major fractures and low for hip fractures, besides involving 94.59% of the high-risk portion, exceeding the risks of the healthy group, which mainly concentrated medium risk and the largest parcel of low risk.

CONCLUSION

The FRAX-Brazil tool associated patients with rheumatological and/or endocrinological disorders to greater chances of high and medium fracture risks and, consequently, needs for risk monitoring and management. Thereby, FRAX-Brazil is an important tool for observation and clinical decision, since it works properly with clinical data, allowing early therapeutic intervention and selection of patients for DXA, containing expenses, and providing for preventing fractures and identifying with greater availability and easy diagnoses of osteoporosis.

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