CORRELATION BETWEEN CARDIOVASCULAR RISK AND PAIN, STIFFNESS AND PHYSICAL FUNCTION ASSESED BY WOMAC SCALE IN PACIENTS WITH KNEE AND HIP OSTEOARTHRITIS

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BACKGROUND

Osteoarthritis (OA), previously considered exclusively a mechanical stress related pathology in the joints, currently is considered a multifactorial disorder involving several immune-metabolic phenomena, like chronic pro-inflammatory states, obesity, diabetes and Metabolic Syndrome. Because these metabolic conditions are also involved in the genesis of cardiovascular events, it is essential to better understand the relationship between OA, cardiovascular risk and quality of life of patients with this disease. The objective of this study was to analyze the conditions related to cardiovascular risk and its measurement using the Framingham's score (FS) in patients with OA and to correlate that risk with the perception of pain, stiffness and physical function of these patients, evaluated using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC).

MATERIALS AND METHODS

The study included participants of both sexes, aged between 35 and 74 years, with knee and / or hip OA according to the diagnostic criteria of the American College of Rheumatology (ACR). Patients with inflammatory and/or infectious arthropathies and those with previous cardiovascular events were excluded from the study. The patients answered a sociodemographic questionnaire, a WOMAC questionnaire and as well the data necessary for the calculation of FS. Data analysis was done using descriptive statistics and the measurement of the power of association between the variables (WOMAC and EF index) was made by the Spearman's rank correlation coefficient. For all analyzes was adopted a significance level of 5% ($p \leq 0.05$).

RESULTS

Fifty patients (n) were selected for the study (mean age 62.5 years ± 14.1 years, mean BMI 29.94 ± 10.46); 28% were white and 72% non-white; 94% had a maximum of 2 wages as total income. Incidence of Comorbidities: hypertension (74%), dyslipidemia and osteoporosis (52%), obesity (50%), diabetes (32%), depression (22%). Regarding cardiovascular risk, 40% had an intermediate risk by FS, 26% had low risk and 34% had high risk; mean WOMAC index of 62.1 ± 38.3, minimum 16 and maximum of 96; r of Spearman for FS x WOMAC = 0.909 (0.947-0.844).

CONCLUSION

There is a strong positive association (approximately 91%) between FS values and WOMAC index, in agreement with the current literature. However, in order to establish a causal relationship between variables, further studies should be performed.