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Original article

Risk factors for cardiovascular disease in rheumatoid arthritis patients from Mato Grosso do Sul

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ABSTRACT

Objective: To identify risk factors for cardiovascular disease in patients with Rheumatoid Arthritis (RA).

Material and methods: A descriptive cross-sectional study with 71 patients with established RA. The instruments used were: DAS-28, HAQ and SF-36, and the following parameters were determined: the erythrocyte sedimentation rate, capillary blood glucose; total cholesterol (TC) and its fractions, thyroid hormones, antinuclear antibodies (ANA), rheumatoid factor (RF) and antibodies against citrullinated proteins (ACPAs). Patients were classified into groups HAQ $\leq$ 1 (mild dysfunction) and HAQ $>$ 1 (moderate and severe dysfunction) and, according to the HAQ scores, in groups treated with corticosteroids (CS) and without CS.

Results: 9 patients were male and 62 female with mean age and duration of disease of 53.45 ($\pm$10.7) and 9.9 ($\pm$8.6), respectively. RF was positive in 52 (76%), ACPAs in 54 (76.1%) and ANA in 12 (16.9%). Thirty-six patients (50.7%) had systemic hypertension, 9 (12.68%) diabetes mellitus, 16 (22.5%) hypothyroidism, 33 (46.5%) dyslipidemia and 8 (11.27%) were smokers. The results of TC $>$ 240 were found in 53.8% for group HAQ $>$ 1 (26) and in 24.4% for group HAQ $\leq$ 1 (45) ($p=0.020$). These groups did not differ as to presence of comorbidities or drug treatment. Triglyceride levels $>$200 for the group with CS (42.4%) *versus* without CS (18.42%) were significant ($p=0.025$).

Conclusion: An association of increased TC and triglycerides with results of HAQ $\leq$ 1 and with CS use was noted, reinforcing the importance of screening risk factors associated with cardiovascular disease in RA.

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Caracterização de pacientes com artrite reumatoide quanto a fatores de risco para doenças vasculares cardíacas no Mato Grosso do Sul

R E S U M O

Palavras-chave:
Artrite reumatoide
Autoanticorpos
Comorbidades

Objetivo: Caracterizar pacientes com Artrite Reumatoide (AR) quanto à presença de fatores de risco para doenças cardiovasculares.

Material e métodos: Estudo transversal descritivo com 71 pacientes diagnosticados com AR definida. Foram utilizados os instrumentos: DAS-28, HAQ e SF-36 e determinados os parâmetros: velocidade de hemossedimentação, glicemia capilar; colesterol total (CT) e suas frações, hormônios tiroidianos, anticorpos antinúcleo (ANA), fator reumatoide (FR) e anti-corpos contra proteínas citrulinadas (ACPAs). Os pacientes foram classificados em grupos HAQ ≤1 (disfunção leve) e HAQ >1 (disfunção moderada e grave) e, segundo os escores do HAQ, em grupo tratado com corticosteroides (CE) e sem CE.

Resultados: Proporção de 9 homens para 62 mulheres com idade e tempo médio de doença de 53,45 (± 10,7) e 9,9 (± 8,6), respectivamente. O FR foi positivo em 52 (76%), os ACPAs em 54 (76,1%) e ANA em 12 (16,9%). Trinta e seis pacientes (50,7%) apresentaram hipertensão arterial sistêmica, 9 (12,68%) *Diabetes mellitus*, 16 (22,5%) hipotireoidismo, 33 (46,5%) dislipidemia e 8 (11,27%) tabagismo. O grupo HAQ >1 (26) apresentou resultados de CT >240 (53,8%) e o grupo com HAQ ≤1 (45) (24,4%) (p = 0,020). Os grupos não diferiram quanto à presença de comorbidades ou tratamento farmacológico. Os níveis de triglicérides >200 (42,4%) entre os grupos em uso de CE e sem uso (18,42%) foi significativo (p = 0,025).

Conclusão: Houve associação do aumento CT e triglicerídeos com resultados de HAQ ≤1 e com uso de CE, reforçando a importância do rastreamento de fatores de risco associados às doenças cardiovasculares na AR.

Introduction

Rheumatoid Arthritis (RA) is a chronic, inflammatory, autoimmune disease, with unknown etiology, associated with progressive joint dysfunction, whose consequence for patients is functional limitation for their daily and professional activities. Furthermore, RA can lead to systemic complications and early mortality.[1]

The pharmacological research involving RA has changed considerably, and the current treatment recommends the introduction of an early and aggressive therapeutic action, guided by disease activity indexes. However, what has been observed is that some patients do not present effective results to available treatments.[2]

In addition, higher severity and early mortality from cardiovascular disease in these patients, when compared to the healthy population,[3] remains a challenge for physicians who are monitoring these patients.

Current published literature advocates the identification of subgroups of patients with different prognosis and therapeutic responses.[4] Thus, this study aimed to characterize patients diagnosed with RA in terms of risk factors for cardiovascular disease, identifying possible markers that show those patients with worse prognosis, treated or not treated with corticosteroids, such as: IgM class rheumatoid factor antibodies (RF), antibodies against citrullinated proteins (ACPAs), and antinuclear antibodies (ANA); presence of comorbidities: systemic hypertension (SH), diabetes mellitus (DM), hypo- or hyperthyroidism and dyslipidemias, and to correlate these markers with clinical activity of disease, functional status and quality of life.

Material and methods

This is a descriptive cross-sectional study that evaluated consecutive patients from July 2012 to February 2013, attended at the Rheumatoid Arthritis Outpatient Clinic, Department of Rheumatology, University Hospital (UH) of Universidade Federal de Grande Dourados (UFGD). The study included 71 patients of both genders previously diagnosed with RA, who met the 1987 American College of Rheumatology criteria for RA.[5] Patients who agreed to participate in this study signed an informed consent form. The project was approved by the Research Ethics Committee of UFGD, protocol number 14136013.0.0000.5160. Patients were clinically assessed by rheumatologists who calculated disease activity with the Disease Activity Score for 28 joints (DAS-28), using as laboratory parameter the erythrocyte sedimentation rate.[6]

Clinical evaluation included the body mass index (BMI) that was computed as weight divided by height squared. Individuals were weighed barefoot wearing light clothes t, using a scale and stadiometer (WELMY). Patients with a previous diagnosis and in use of antihypertensive medication, as well as those with an elevated blood pressure at the time of measurement were considered hypertensive. Later, the diagnosis of hypertension was confirmed during follow-up, according to Brazilian Society of Hypertension guidelines.[7] We considered as diabetic those patients being treated for the disease and