

Psychological Effects and Risk Factors for the Appearance of Atherosclerosis in Patients with Rheumatoid Arthritis in the Health Centers of the City of Tulcán

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Abstract

The study carried out in the Health Centers of the city of Tulcán, the main objective is to develop an intervention plan in the risk factors for the formation of atherosclerosis in patients with rheumatoid arthritis, a quantitative, qualitative, descriptive and In the field study, the diagnostic survey was used as a study technique, in which the following results were obtained: 49% are between 50 and 69 years old, 67% are female, 51% abandoned pharmacological treatment due to a poor adherence and 77% consider that they present some of the risk factors for atherosclerosis. A diagnosis was reached that led to the identification of the problem, the respective analysis of results and the schematization of the proposal for the improvement of education and prevention to be implemented, the same that will later be used by health personnel as a tool.

Keywords: Rheumatoid arthritis; atherosclerosis; risk factors.

Introduction

Result of the exhaustive research on the formation of atherosclerosis in patients with rheumatoid arthritis – RA, within the framework of the project to identify the risk factors for the formation of atherosclerosis in patients with rheumatoid arthritis of the health centers of the city of Tulcán, we cite:

The chronic inflammation of Rheumatoid Arthritis can lead to an increased cardiovascular risk through the acceleration of arteriosclerosis which is hardening and narrowing of the arteries caused by hypertension, smoking or high cholesterol. The formation of arteriosclerosis plaques (or atheromatous plaque) in the arteries causes heart attacks, strokes (stroke or stroke) and peripheral vascular disease alteration of the arteries in the extremities (1).

Arterial hypertension is the main risk factor that predisposes to the increase in cardiovascular risk in patients with rheumatoid arthritis, therefore, it predisposes the formation of atherosclerosis that is basically the hardening and narrowing of the arteries, this triggers heart attacks, strokes and other cardiological alterations.

According to Hernández "et al"; in their study conducted in Cuba, in which they aimed to characterize the risk factors for the appearance of atherosclerosis in patients with rheumatoid arthritis and identify their relationship with the time of diagnosis, inflammatory activity and treatment. In the method: a cross-sectional descriptive study was conducted in patients with rheumatoid arthritis treated at the Rheumatology Center of the Clinical Surgical Teaching Hospital. The results obtained were that the highest frequency was for the female sex, the age range 45-54 years. Atheromatous plaque was observed in 37.2 % and medial intimate complex thickening in 15.4 %. The risk factors that showed association with the presence of plaque were: hypertriglyceridemia ($p= 0.000$),

hypercholesterolemia ($p= 0.000$), diabetes mellitus ($p= 0.027$) and elevated levels of C-reactive protein ($p= 0.003$) (2).

According to the study described above, it determined that rheumatoid arthritis and cardiological complications that are triggered such as atherosclerosis, is predominant in the female sex, and the age range is between 45 and 54 years of age, an important part of the population considered presented an atheromatous plaque, identifying as the most important factor is hypertriglyceremia.

On the other hand, Castillo "et al"; development of research in Ecuador – Quito; with the objective of evaluating health-related quality of life and associated clinical, demographic and socioeconomic factors in a cohort of Ecuadorian patients with rheumatoid arthritis. It was a cross-sectional descriptive study that evaluated HRQoL with the Spanish version of the Quality of life–Reumathoid Arthirtis instrument in patients diagnosed with RA according to the criteria of the American College of Rheumatology and the European League, against rheumatism. The results obtained in this research: a total of 163 patients with RA were evaluated, the mean score of the QoL-RA scale was 6.84 ± 1.5 points. The highest means were obtained in the interaction (8.04 ± 1.9) and support (8.01 ± 2) domains. The factors that were associated with the global assessment of quality of life were: mean functionality with MHAQ ($r= -0.70$; $p<0.001$); disease duration in years ($r= -0.178$; $p<0.05$) and disease activity (mean difference of 1.5; CI 95%: 1.09-1.91) (3).

In this sense, the data obtained by this research contribute to the evaluation not only of clinical factors, it is also important to consider environmental, demographic and socioeconomic factors, data of utmost importance for the development of this research project.

As background we highlight that there is no research related to rheumatoid arthritis with atherosclerosis in the province at the level of Carchi – Tulcán, therefore, the present study will provide important and novel information for the academic field.

Some important aspects considered in the importance and timeliness of this problem, we highlight:

At present internationally we can mention that rheumatoid arthritis (RA) is a chronic systemic inflammatory disease of unknown etiology that predominantly affects the joints. It has been estimated that 0.5-1% of the American population between the ages of 20 and 80 suffer from it. Its prevalence increases with age and is higher between 55 and 75 years. It affects women more often than men, in a ratio of approximately 3:11. Due to its complications, the disease itself or the treatments used, RA has been associated with a decrease in life expectancy of affected individuals (4).

This decrease in survival observed in patients with RA is comparable to that in patients with ischaemic heart disease with three-vessel involvement and in patients with Hodgkin's disease. All this allows us to consider RA as a chronic inflammatory disease that has a significant negative impact on quality of life, with excess mortality of those who suffer from it and considerable socioeconomic costs (5).

In Ecuador, several studies have identified the high incidence of atherosclerotic risk factors in patients with rheumatoid arthritis, with the highest incidence being smoking, hypertension and elevation of body mass index; Methotrexate and steroids are the most commonly used drugs in the control of rheumatoid arthritis and it seems that, in the doses usually used, they have a protective role on the vascular endothelium (6).

Socio-economic development is directly affected as the magnitude of the socio-economic impact of RA is difficult to assess and poses significant methodological problems. Three types of costs should be considered: direct, indirect and intangible. The direct costs are subdivided into two types, the health costs, which derive from the consumption of care resources (consultations, monitoring of the disease with radiological controls and laboratory tests, pharmaceutical expenditure, hospitalization, orthotic measures and prostheses) and the parasanitary, such as expenses to make adaptations at home, work environment and means of transport.(7)

They are so designated because of the enormous difficulty involved in their detection and assessment. As an example, it is worth mentioning the cost of transportation and the hours of work lost by the relatives who

accompany the patient to the consultations. Additionally, expenses induced by comorbidity, such as cardiovascular disease, infections, some neoplasms, complications of secondary osteoporosis or adverse effects of medication should be considered (8).

Materials and Methods

The methods used in the research we have, the historical-logical in the review of the evolution of the problem studied, the analytical-synthetic analyzed everything consulted regarding the risk factors for atherosclerosis in patients with rheumatoid arthritis, the inductive-deductive allowed to start from the general premises to the specific ones referring to the physical risk factors, Systemic Methods of the research project keeps an objective and coherent sequence of what is studied, starting from the bibliographic research, through the application of optimal research techniques for obtaining information and subsequent analysis of results.

The technique used was the survey, the same that was applied to patients with rheumatoid arthritis, to easily determine the physical risk factors of atherosclerosis in patients with rheumatoid arthritis; The research instruments The questionnaire, a group of closed questions was posed.

Within the information processing and analysis plans, the tabulation of data obtained from the surveys individually was grouped and tabulated using the Microsoft Excel program, to later graph them using circular statistical diagrams. The interpretation of results was analyzed in a group.

The population for the study is 45 people who have been diagnosed with rheumatoid arthritis and medical controls are made in the different Health Centers of the city of Tulcán. The sample in the present research in view of the fact that the population is small, the research was carried out with the entire population, Among the inclusion criteria are considered patients with confirmed medical diagnosis, and exclusion criteria patients who are studying their diagnosis and those who have not defined medical diagnosis. The variables identified in the present study, independent risk factors of subclinical atherosclerosis, the dependent variable atherosclerosis in patients with rheumatoid arthritis. The data obtained from the surveys individually were grouped and tabulated using the Microsoft Excel program, and then graphed using circular statistical diagrams.

Thematic axis: Health and Well-being

Results.

The information and/or product relevant to the objectives of the study and the findings are presented in logical sequence.

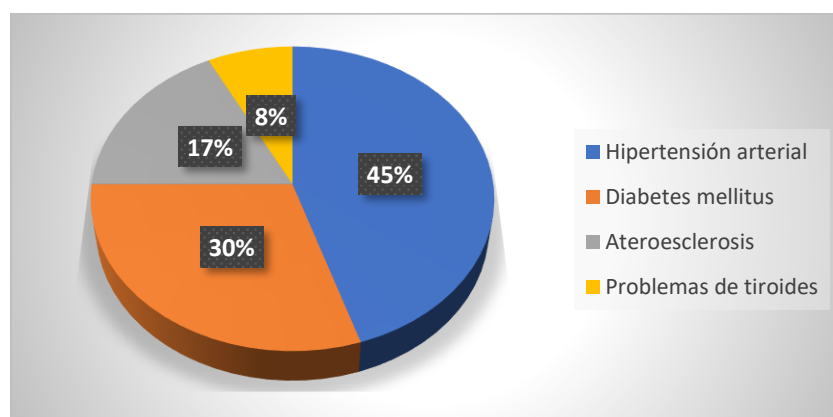


Figure N° 1. Complications of rheumatoid arthritis.

Only 17% of the people investigated adequately identified which is the main complication caused by rheumatoid arthritis, on the other hand, 83% answered incorrectly, this ignorance is a potential risk, because this complication

can not be prevented, therefore, its morbidity and mortality will continue to increase and affect thousands of people.

Discussion

Among the research results that are part of the discussion, we mention:

In the present study, 51% of patients abandoned the treatment of rheumatoid arthritis, an extremely worrying fact since it is a disease whose evolution is constant and the damage it causes irreversible, however the main reason why most patients abandon.

This is related to the study "although it is reported that these damages occur in patients with long-term disease, they have also been described in patients with relatively short diagnosis time but associated with other situations such as: aggressiveness of the disease, abandonment of treatment, presence of comorbidities, late diagnosis or incorrect treatment" (9).

53% of the study population does not report suffering from some of the personal history, however, the other remaining group has some of the diseases that in turn constitute a risk factor that increases cardiovascular risk, having any of these diseases constitutes the presence of what is known as risk factors that cannot be modified. This result can be related to the study "Only in 20 cases was a family history of rheumatic disease (7.14%) collected, and the most frequent were: rheumatic fever (2.86%) and rheumatoid arthritis (2.50%)" (10).

As evidenced, only 19% of the people investigated indicated that, if you have the habit of smoking tobacco, there is a linear relationship between cigarette consumption and cardiovascular risks that may occur, however, numerous studies determined that there is no safe minimum dose, in the same way cigarettes. We can correspond to the study, antibody concentrations higher than 40 U/mL were associated with smoking in the patients studied ($p = 0.0339$). An association was observed between antibody concentrations above 40 U/mL and moderate or high clinical activity ($p=0.0382$), as well as with C-reactive protein positivity ($p=0.0002$). Smoking is associated with high concentrations of antibodies against a citrullinated fibrinogen peptide, linked to greater clinical severity of the disease in Cuban patients with rheumatoid arthritis (11).

45% of the population does not know the triggers of atherosclerosis, therefore ignorance is ruled out in a certain group as a trigger for the presence of risk factors, its importance lies in the fact that its knowledge and correct interpretation are essential for the proper management of the health-disease process. This result corresponds to a study "There are primary triggers, which initiate the inflammatory cascade, such as the presence of elevated levels of oxidized LDL, the factor that initiates atherogenic activity earlier. Similarly; Other secondary triggers are involved in maintaining and amplifying cytokine production in atherosclerotic lesions" (12).

Another important result is, 83% have ignorance about the risks of atherosclerosis, it poses a potential risk because this complication cannot be prevented, therefore, its morbidity and mortality will continue to increase and affect thousands of people. This result is related to the study "female sex predominated in 80.7 % of the patients studied, the age group with the highest representation was that of 45 to 54 years with 30 patients (26.3 %). Infections were more frequent in patients with longer disease progression. Dermatological, genitourinary and respiratory infections predominated" (13).

84% do not know about atherosclerosis, this important result is related to the survey on the degree of knowledge of cardiovascular risk factors and atherosclerosis diseases conducted in 2002 in Central America and the Caribbean, where it divided the population into three strata or ranges of knowledge a) knowledge is equivalent to a result of 79 percent or more. b) close knowledge between 59 and 78 percent. c) No knowledge equals a score of less than 59 percent (14). A total of 1,245 surveys were conducted out of these 1000 divided into four groups with 300 patient surveys from the different hospitals, 300 surveys of workers in the free zone maquilas, 200 surveys of primary and secondary school teachers and 200 surveys of university professors (15).

Conclusions

- The technological advance and the use of bibliographic material allowed to obtain information to expand knowledge and achieve the theoretical foundation of this research work on the risk factors that predispose the formation of atherosclerosis in patients with rheumatoid arthritis, as well as basic foundations or means to implement an intervention plan.
- The diagnosis of the current situation shows enormous shortcomings in terms of the level of knowledge possessed by patients with rheumatoid arthritis regarding the risk factors that determine the formation of atherosclerosis. The implementation of an intervention plan constituted a fundamental role, since it is contextualized in the strengthening of the patient's knowledge and especially the identification and subsequent change in the risk factors that are can modify.
- Based on the diagnosis obtained from the population investigated, it was possible to propose and implement an intervention plan focused on education and the modification of risk factors, this intervention plan is made up of several activities, which constitute a tool for health personnel of different health centers to reduce the rate of complications to which patients with arthritis are exposed. rheumatoid.

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