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Original Research Paper

Rheumatology

REACTIVE ARTHRITIS AS CLINICAL SUSPICION OF COVID-19 INFECTION

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ABSTRACT Rheumatic manifestations occur relatively frequently in the course of COVID-19. In the cases of paucisymptomatic patients they constitute an element of clinical suspicion for the definitive diagnosis of the disease. Reactive arthritis is the most common rheumatic manifestation seen in COVID-19. The objective of this work is to report the case of a female patient in which the presence of reactive arthritis constitutes the elements of suspicion for the definitive diagnosis of the disease. It is concluded that rheumatic manifestations constitute an important element of suspicion to diagnose COVID-19, mainly in patients without respiratory manifestations of the disease.

KEYWORDS : COVID-19, inflammation, rheumatic manifestations, paucisymptomatic patient, reactive arthritis

INTRODUCTION

COVID-19 is a viral disease whose etiopathogenic mechanism focuses on involvement of the immune system with the presence of systemic inflammatory symptoms and local microcirculation disorders. Its most frequent clinical manifestations include general, respiratory, dermatological manifestations and osteomioarticular involvement. (1)

Rheumatic manifestations are one of the main symptoms or signs observed in COVID-19. Its importance lies in the fact that it occurs in around 40% of paucisymptomatic patients, that is, patients with a diagnosis of COVID-19 but without respiratory manifestations. Arthralgia, myalgia, fibromyalgia and reactive arthritis have been described as the most frequent manifestations. (2)

Reactive arthritis (RA) is clinically expressed as a mono or oligo-articular condition that mainly affects the lower limbs. They present with pain, inflammation, redness, heat and limitation of joint mobility to a variable degree. They usually appear between 2 and 8 weeks after the presence of an infectious process and are the expression of the affectation generated to the immune system. The evolution is variable and depends, among other factors, on the persistence of the process that causes it and the therapeutic response. Treatment focuses on the use of steroidal or non-steroidal anti-inflammatory drugs and the use of oral or intra-articular glucocorticoids. (3,4)

The objective of this communication is to report a clinical case of a 53-year-old female patient, with a history of good health, in which the presence of a picture of RA constitutes the element of clinical suspicion that allows making the diagnosis. definitive diagnosis of COVID-19.

Case Report

Female patient, 53 years old, with a history of good health who attended the consultation referring to symptoms of 7 days of evolution with the presence of tiredness, fatigue and marked decay. He refers feeling of evening fever but that the temperature has not been taken. For the past 5 days, he has started with an inflammatory picture that concerns the right knee with the presence of pain, heat and joint redness. Describes difficulty performing flexo-extension of the joint.

The physical examination confirmed as positive data the increase in volume of the right knee, with local heat and redness in the joint margins. There is difficulty in performing all the movements of the joint and a positive patellar rally maneuver is identified (figure 1).

Taking into account the presence of general manifestations, the joint picture and the epidemiological history of COVID-19 in the context of the investigation, we proceed to suspect the possible presence of RA in the course of a COVID-19 infection. The diagnosis was confirmed with a positive polymerase chain reaction test (PCR).

Once the diagnosis of RA in the course of COVID-19 was confirmed, daily oral treatment with 10 mg of prednisone and 150 mg of diclofenac sodium was started. Arthrosynthesis was performed, extracting 56 cc of synovial fluid with macroscopic characteristics of an inflammatory fluid. The evolution of the patient was favorable for both the articular and respiratory symptoms.

Figure 1: Reactive arthritis secondary to COVID-19 infection

Sources: research team

DISCUSSION

RA has been described as a condition that mainly affects male patients included within the group of spondyloarthropathies. In this report, the affectation occurred in a female patient, which has also been reported in other investigations and is related to the presence of the infectious process. (5)

The pattern of joint involvement identified corresponds to that reported in the literature. A monoarticular inflammatory picture was presented in a joint located in the lower limb. The inflammatory signs found were the presence of pain, inflammation, heat, redness, and limitation of mobility.

These joint manifestations are typical of the inflammatory process. COVID-19 is an infectious disease that affects the immune system. Activation of T lymphocytes leads to the perpetuation of a local inflammatory process with localized involvement at the joint level. (6)

The diagnosis of the disease is clinical and the therapeutic scheme includes the use of non-steroidal and steroidal anti-inflammatory drugs. The latter can be used orally or intraarticularly in the form of infiltrations. (7) The use of arthrosynthesis is optional and is oriented in cases where there is a large increase in joint volume due to accumulation of synovial fluid. The extraction of fluid decreases intra-articular pressure and stimulation of the nerve fibers of the synovial membrane, reducing the intensity of pain.

The diagnosis of COVID-19 was based on three fundamental elements. The first of them was related to the epidemiological genius in which COVID-19 has dominated health care during the last two years. The second element was the presence of general manifestations that, although they could also be secondary to RA, are part of the symptomatic procession of respiratory disease and regain a greater diagnostic role in paucisymptomatic patients. Also included within this group is prior knowledge about the percentage of presence of rheumatic manifestations in the course of COVID-19 and the role they play in the positive diagnosis of the disease in patients without respiratory manifestations. (8) The third element was given by the confirmation of the diagnosis through the positivity of the PCR, a laboratory element that has been reported as confirmatory of the diagnosis of the disease caused by coronavirus. (9)

The presence of RA, together with the expertise of health professionals, allowed for the definitive diagnosis of COVID-19 in this patient. In this way it was possible to diagnose early and facilitate the favorable evolution of the patient; as well as minimizing the risk of contagion from other patients due to ignorance of the diagnosis of the disease. In cases in which there is no evidence of respiratory involvement, other manifestations may appear, such as joint or dermatological involvement, which lead to a possible diagnosis of COVID-19. This disease presents a varied procession of symptoms and complications, so early identification is crucial to minimize the risk of complications, especially in patients in whom the symptomatic picture is not so flowery or precise.

CONCLUSIONS

Rheumatic manifestations in the course of COVID-19 constitute a fundamental element within the clinical picture of the disease. In paucisymptomatic patients, where there are no respiratory manifestations, its presence constitutes an element of clinical suspicion that allows the definitive diagnosis of COVID-19.

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Conflicts of Interest

The authors declare no conflict of interest.

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