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LETTER

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Psoriatic arthritis mutilans: a descriptive study from a Brazilian tertiary center

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Abstract

In this paper, we sought to determine the prevalence of arthritis mutilans in a single cohort of Brazilian psoriatic arthritis patients followed at a tertiary university reference center. Our study demonstrated a high prevalence of arthritis mutilans associated to comorbidities and biologic therapy. In addition, our data suggest that axial involvement may be an intriguing aspect of psoriatic arthritis mutilans and that rheumatologists should be aware of axial disease, even if the phenotype is marked by peripheral joint severity.

Keywords: Psoriatic arthritis, Arthritis mutilans, Spondyloarthritis

Dear Editor,

Arthritis mutilans (AM) represents the rarest and most destructive form of psoriatic arthritis (PsA), often complicated by digital telescoping, termed "opera-glass finger", which results from the intense osteolysis of peripheral joints [1]. In this study, we sought to determine, through the retrospective analysis of electronic medical records, the prevalence and main characteristics of AM in a Brazilian cohort of PsA patients followed at our tertiary university center from January 2002 to December 2017. AM was defined based on the presence of at least one shortened finger or toe (digital telescoping) in addition to severe radiographic erosive arthritis of hands or feet, with a pencil-in-cup pattern or gross osteolysis on both sides of the joint [2]. Clinical data, HLA-B27 testing, radiographic and treatment characteristics were collected from the medical records of patients with AM.

In a cohort of 207 adult PsA patients who met the CASPAR criteria [3], 17 patients (8.2%) were considered AM; 70% were male and 53% Caucasian, with median age of 58 [53–68] years. Axial radiographs, taken in 16 patients with AM, revealed axial PsA in 10 cases (62.5%), defined here as the presence of parasyndesmophytes and/or radiographic sacroiliitis according to the modified New York criteria for ankylosing spondylitis [4]. HLA-B27 was positive in 9 of 13 tested AM patients, including 6 of those with radiographic axial disease.

AM patients frequently had comorbidities such as hypertension in 13 (76%), dyslipidemia in 10 (59%), metabolic syndrome in 9 (53%), osteoporosis in 6 (35%) and 4 (24%) had fragility fractures. Psychiatric disorders were observed in 4 (24%) patients, thyroid disease in 3 (18%) and a history of malignancy was identified in 3 (18%) additional subjects. All 17 AM patients were treated with conventional synthetic disease-modifying antirheumatic drugs (csDMARD) and 10 (59%) required biological agents (Table 1).

The prevalence of AM in our Brazilian PsA cohort (8.2%) is slightly higher than the less than 5% described in most reports [5], perhaps due to genetic and/or geographic differences or due to the tertiary referral characteristic of our center. Our AM patients had a high prevalence of comorbidities, particularly related to increased cardiovascular risk, and most of them required biological therapy. Moreover, our data suggest that axial

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Table 1 Characteristics of PsA patients with arthritis mutilans

Variable	N = 17
Age (years)	58 [53; 68]
Male gender	12 (70)
Caucasian ethnicity	9 (53)
Age at onset—skin (years)	33 [27; 38.5]
Age at onset—joint (years)	35 [27; 42]
Psoriasis duration (years)	25 [20; 34.5]
Arthritis duration (years)	22 [17; 31]
Axial involvement	10/16 (62.5)
Syndesmophytes/parasyndesmophytes	9/16 (56)
Radiographic sacroiilitis*	7/16 (44)
HLA-B27 positive	9/13 (69)
Comorbidity n (%)	
Hypertension	13 (76)
Dyslipidemia	10 (59)
Metabolic syndrome	9 (53)
Prediabetes	6 (35)
Obesity (BMI $\geq$ 30 kg/m^2)	4 (24)
Diabetes mellitus	2 (12)
Thyroid disease	3 (18)
Hypothyroidism	2 (12)
Hyperthyroidism	1 (6)
Psychiatric disorders	4 (24)
Depression	2 (12)
Anxiety	2 (12)
Cancer	3 (18)
Osteoporosis	6 (35)
Fragility fracture	4 (24)
Treatment n (%)	
History of csDMARD use	17 (100)
MTX	16 (94)
Leflunomide	9 (53)
Sulfasalazine	4 (24)
Cyclosporine	3 (18)
bDMARD	10 (59)
Infliximab	8 (47)
Etanercept	4 (24)
Adalimumab	4 (24)
Golimumab	1 (6)
Secukinumab	2 (12)
Abatacept	2 (12)

Modified New York criteria for ankylosing spondylitis

Data are expressed as frequency (%) or median [25th; 75th]

BMI, Body Mass Index; csDMARD, conventional synthetic disease-modifying antirheumatic drug; MTX, methotrexate; bDMARD, biologic disease-modifying antirheumatic drug

involvement may be an intriguing aspect of psoriatic AM and that rheumatologists should be aware of axial disease, even if the phenotype is marked by peripheral joint severity.

Abbreviations

AM: Arthritis mutilans; PsA: Psoriatic arthritis; BMI: Body Mass Index; MTX: Methotrexate; csDMARD: Conventional synthetic disease-modifying antirheumatic drug; bDMARD: Biologic disease-modifying antirheumatic drug.

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Author contributions

JLO and CGS conceived the article. Data acquisition, analysis and/or interpretation: RAC, JLO, PDSB and CGS. All authors wrote and drafted the manuscript. All authors read and approved the final manuscript.

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Availability of data and materials

All data generated during this study are included in this article or are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

The study was approved by the local ethical committee of Universidade de Sao Paulo (18329413.8.0000.0068).

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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