

DEMOGRAPHIC AND CLINICAL PARAMETERS EVALUATION FOR PATIENTS WITH PSORIATIC VERSUS RHEUMATOID ARTHRITIS

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ABSTRACT. Evaluate demographic and clinical parameters for psoriatic arthritis in comparison with rheumatoid arthritis, to demonstrate the existence of clinically significant differences between the two diseases. We investigated two groups of patients: group 1 (patients with *psoriatic arthritis* diagnosed according to the *CASPAR criteria*), group 2 (patients with *rheumatoid arthritis* diagnosed according to the *ARA criteria*). For each group we analysed as follow: detailed case history, detailed clinical examination and adapted questionnaire. Comparing the group of patients with **psoriatic arthritis** to those with **rheumatoid arthritis** it can be seen a net differences between the two diseases. Our personal interest was based on the finding that this disease significantly affects patient's quality of life, disability who joins the skin lesions of psoriasis conferred and aimed us to study and identify some clinical and demographic parameters useful in early diagnosis to prevent the occurrence of disability in these patients.

KEYWORDS: psoriatic arthritis, rheumatoid arthritis, demographic and clinical parameters

INTRODUCTION

In his thesis "*Psoriasis et arthropathies*", Charles Bourdillon describes and characterizes psoriatic arthritis for the first time as an independent disease. He shows that this disorder appears more prevalent in whites, and it's significantly affecting more females (ratio of males:females is approximately 1:1.29), unlike rheumatoid arthritis that occurs with an obvious superior frequency in females [1]. In terms of age for developing psoriatic arthritis, studies have shown that there is a peak of maximum incidence in disease occurrence ranged from 35 to 55 years, but the disease can affect people of any age [2, 3].

Although since 1964 the American Society of Rheumatology recognizes psoriatic arthritis as a distinct clinical entity, to this day no clear diagnostic criteria of the disease are established and unanimously accepted, so that a thorough history and physical exam are considered essential for psoriatic arthritis diagnosis.

Clinically, psoriatic arthritis can be classified into five groups: *peripheral joint damage* (70% of patients), *rheumatoid joint damage* (25% of patients), *asymmetric joint damage crippling arthritis* (5% of patients), and *axial type* (30% of patients) [4, 5, 6, 7]. In most cases, the symptoms are intricate in practice, "pure" clinical subtypes presence is extremely rare. The frequency of these clinical forms is variable, studies showing that oligoarticular type is the most frequent [6, 7, 8].

Nail disorders in psoriatic arthritis are found in approximately 80% of patients, especially for those with compromised distal interphalangeal joints and mostly for crippling forms of psoriatic arthritis [9, 10, 11].

Enthesitis, common clinical feature in psoriatic arthritis representing the inflammation of tendon insertion to the bone, of the ligaments and of the joint capsule. The most frequently affected are as follow: Achilles tendon insertion, the plantar fascia insertion on calcaneus and ligaments insertion of the pelvis, chest and spine [9]. Unlike rheumatoid arthritis, psoriatic arthritis extra-articular manifestations, except skin and nail disorders, are relatively rare.

Our aim is to:

- evaluate certain demographic and clinical parameters for patients with psoriatic arthritis in order to highlight the importance of clinical examination in psoriatic arthritis diagnosis.
- evaluate certain demographic and clinical parameters for psoriatic arthritis in comparison with rheumatoid arthritis, to demonstrate the existence of clinically significant differences between the two diseases.

MATERIAL AND METHODS

Since the diagnosis of psoriatic arthritis is, in the absence of generally accepted criteria, quite difficult to determine and since the number of patients in whom this diagnosis of faultless accuracy is relatively small, our study was conducted on a relatively small number, but still representative, of patients whose diagnosis of psoriatic arthritis is undeniable.

In our study we investigated two groups of patients:

- **Group 1** (patients with *psoriatic arthritis* diagnosed according to the *CASPAR criteria*) is composed of 27 patients (n = 27) including

- 15 men and 12 women aged between 27-50 years.
- **Group 2** (patients with *rheumatoid arthritis* diagnosed according to the *ARA criteria*) consists of 21 patients (n = 21) including 17 women and 8 men aged 25-52 years.

Exclusion criteria

Given, as we mentioned, the lack of universally accepted diagnostic criteria for a particular accuracy in positive diagnosis for patients included in the study, we had to exclude many diseases that sometimes at a superficial examination, this condition can be confused with. Thus, we excluded patients with: ankylosing spondylitis, osteoarthritis, seronegative entesophaty arthropathy syndrome, enteropathic arthritis in colitis ulcerosa and Crohn's disease, Behcet's syndrome, Whipple disease, gout, lupus arthritis, septic arthritis, Reiter- Fiessinger – Leroy's syndrome, degenerative arthritis with Heberden and Bouchard nodules.

Demographic and clinical parameters determination

For each group we analysed as follow:

- **Detailed case history** investigation of cutaneous and articular symptoms for each patient, the time sequence of these symptoms, a family history and personal psoriatic arthritis and psoriasis pathological history.
- **Detailed clinical examination** outlining the clinical type of joint damage, "sausage fingers" presence, "handlers" fingers of crippling arthritis, nail damage or ligament damage.
- **Adapted questionnaire** that met: traditional Moll-Wright criteria, CASPAR (The Classification Criteria for psoriatic Arthritis) criteria, ARA (American Association of Rheumatology) criteria, disease activity score (DAS), extension and severity index of psoriasis (PASI), assessment questionnaire on health status (HAQ) adapted for psoriatic arthritis, scale to quantify the arthritis impact (Impact Measurement Scales AIMS).

Statistical analysis of the data In the conducted study statistical and graphical representations were made by using the Microsoft Office Excel, with elements of descriptive statistics: arithmetic mean \pm standard deviation (mean \pm SD);

Results

The results from our study are summarized and presented in table and figures below (Figure 1, Figure 2, Figure 3, Figure 4, Figure 5, Figure 6, Figure 7, and Figure 8).

DISCUSSIONS

Psoriatic arthritis study took a special breadth in recent years due, on one hand to inexplicably belated awareness that this is a disease of its own, and on the other hand to the fact that this is a debilitating disease that profoundly affects the patient's quality of life.

Psoriatic arthritis prevalence is higher in *whites*, slightly higher in females (ratio of males: females is approximately 1: 1.29), unlike rheumatoid arthritis that occurs with a much higher frequency in women and at the age of 35 to 55 years [2, 3]. Differences between the results of the studies, regarding the incidence of psoriatic arthritis are probably due to the fact that in many cases this disease is underdiagnosed thanks to a large variety of clinical subtypes (oligoarticular, polyarticular, distal interphalangeal, axial predominant and crippling arthritis).

Thus, psoriatic arthritis is often confused with other diseases such as: **rheumatoid arthritis**, osteoarthritis, other spondyloarthropathies, gout, etc [1]. The evolution of psoriatic arthritis is characterized by periods of activation along with periods of remission of the disease. Studies cited in the literature regarding the evolution of psoriatic arthritis, revealed that for a large number of patients the disease causes destruction of the joints, with severe damage to their function and at a rate of about 7% of patients with psoriatic arthritis, musculoskeletal surgery was needed [4, 5, 6, 7]. Recently, the study of clinical manifestations in psoriatic arthritis has excited great interest from researchers, as witnessed by the numerous articles in the existing literature on this topic. Exhaustive studies conducted in the last four decades have confirmed the wide variety of clinical forms observed in psoriatic arthritis. This is due to the fact that the clinical form of psoriatic arthritis may change over the years [9, 10].

Another aspect studied was that of time succession for skin and joint symptoms. One of the conclusions of these studies was that approximately 65% of cases of psoriatic arthritis begins a few years after the appearance of skin symptoms [11, 12]. It is considered that the time elapsed between the onset of skin manifestations and the appearance of psoriatic arthritis is an average of 10 years with limits between 1-20 years. The onset of skin and joint damage is located around 15%, and a 10% joint damage may precede cutaneous manifestation of the disease. In the latter case the average time for cutaneous manifestations to occur is three years, but in literature are also cited cases in which they occurred after 10 or even 20 years. In the latter case psoriatic arthritis diagnosis is made only after the appearance of skin symptoms [10, 11].

The onset of psoriatic arthritis can often be preceded by the emergence of *prodromes*. In about 30% of cases the prodromes are represented by myalgia. In a smaller number of cases these prodromes are: fatigue, fever, and paraesthesia. In other cases onset of psoriatic arthritis is sudden in the affected joint, the celsian signs being present: swelling, heat, redness, pain and functional impotence. These symptoms are forcing patients to interrupt their daily work [12, 13].

In terms of the nails disorders it was found that for psoriatic arthritis they are present in approximately 80% of patients unlike psoriasis without joint damage where nails are affected at a rate of 30% of cases. Nail disorders mainly occurs in psoriatic

arthritis localized to the distal interphalangeal joints and especially mutilating forms [8, 15, 16].

Enthesitis, common clinical feature in psoriatic arthritis is inflammation of a tendon insertion to the bone, of the ligaments and of the joint capsule. The most frequently affected are: Achilles tendon insertion, the plantar fascia insertion on calcaneus and the ligaments of the pelvis, chest and spine insertion [16, 17].

Gladman in a study conducted on this issue have shown that the most commonly affected areas are: the plantar fascia, Achilles tendon and the insertion area at tibia tuberosity level [14, 18].

CONCLUSION

Analysing the results of the study carried out by us we conclude that our results are consistent with those cited in the literature. Comparing the group of patients with **psoriatic arthritis** to those with

rheumatoid arthritis it can be seen a net predominance of female gender in the second group, a predominantly asymmetrical interphalangeal distal joint and spine damage in patients with psoriatic arthritis, and the existence exclusively in patients with psoriatic arthritis of: enthesitis, skin and nail disorders, while rheumatoid nodules are not observed in this group.

Our personal interest to clinical and demographic parameters of psoriatic arthritis study was based on the finding that this disease significantly affects patient's quality of life, disability who joins the skin lesions of psoriasis conferred and aimed us to study and identify some clinical and demographic parameters useful in early diagnosis to prevent the occurrence of disability in these patients.

Figure 1. Comparison of the average age in groups analysed

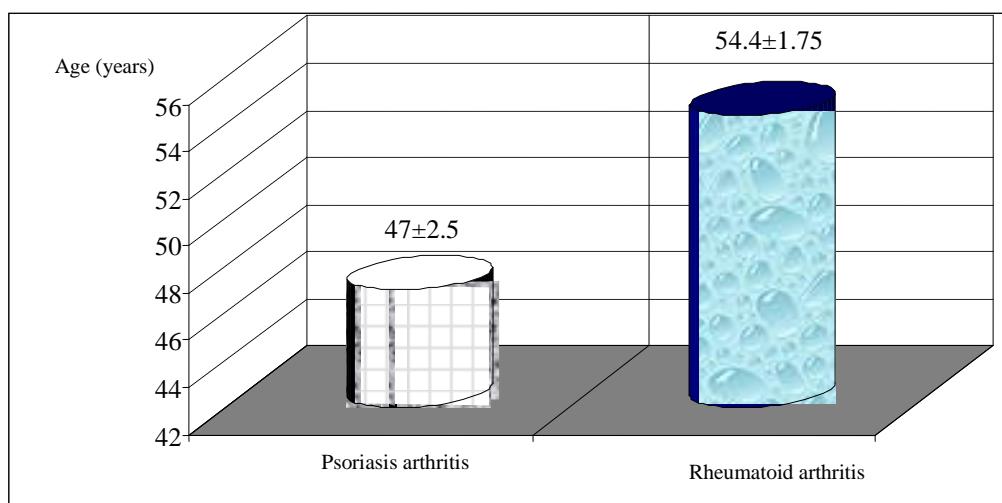


Figure 2. Comparison of the groups analysed by gender

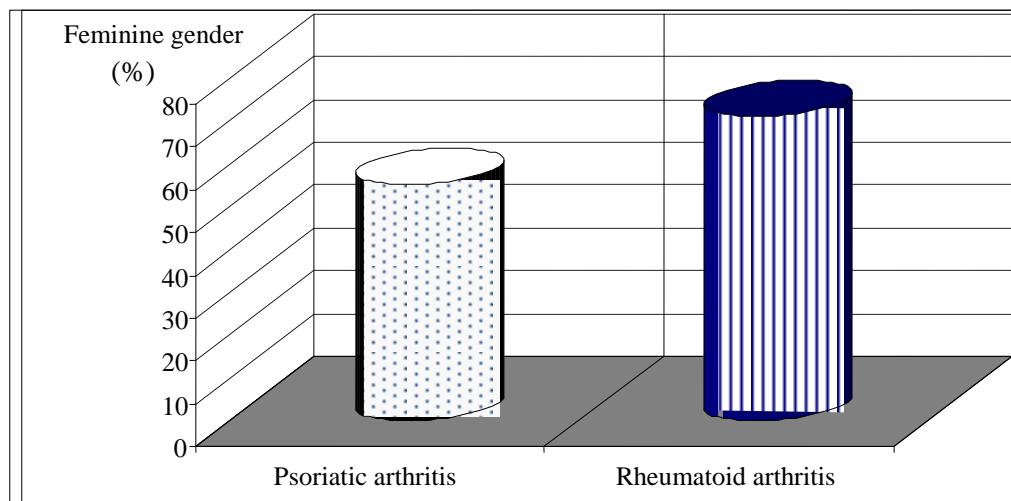


Figure 3. Comparison of joint damage in the groups analysed

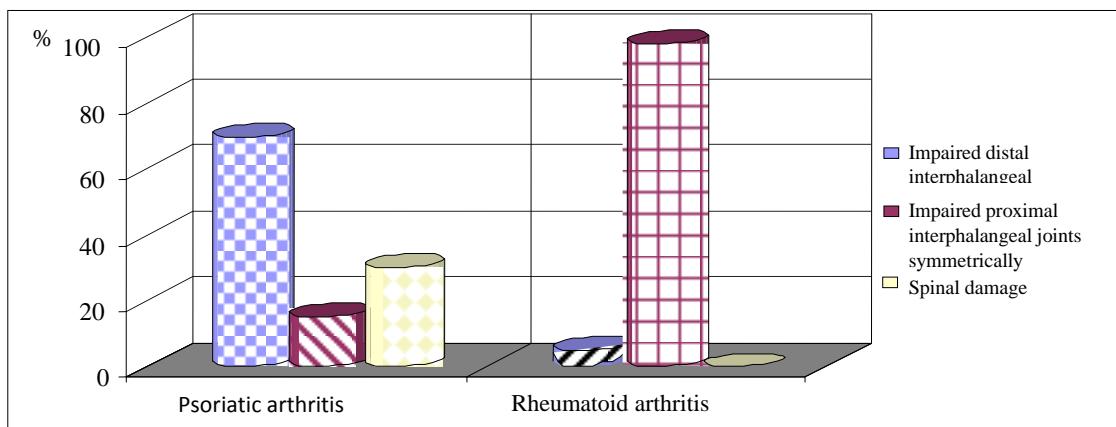


Figure 4. Comparison of extra-articular manifestations in the groups analysed

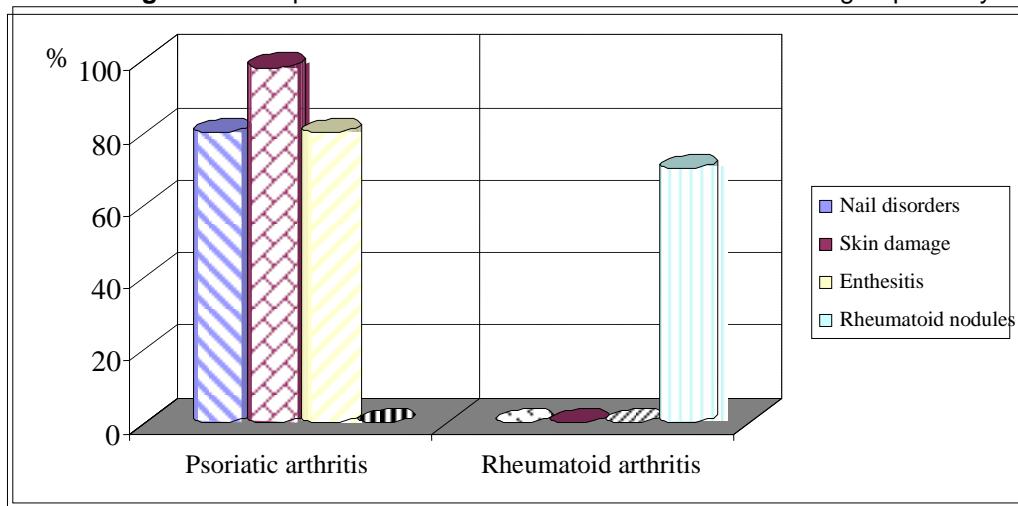


Figure 5. Evolution duration analyse for psoriasis and psoriatic arthritis in patients group with psoriatic arthritis

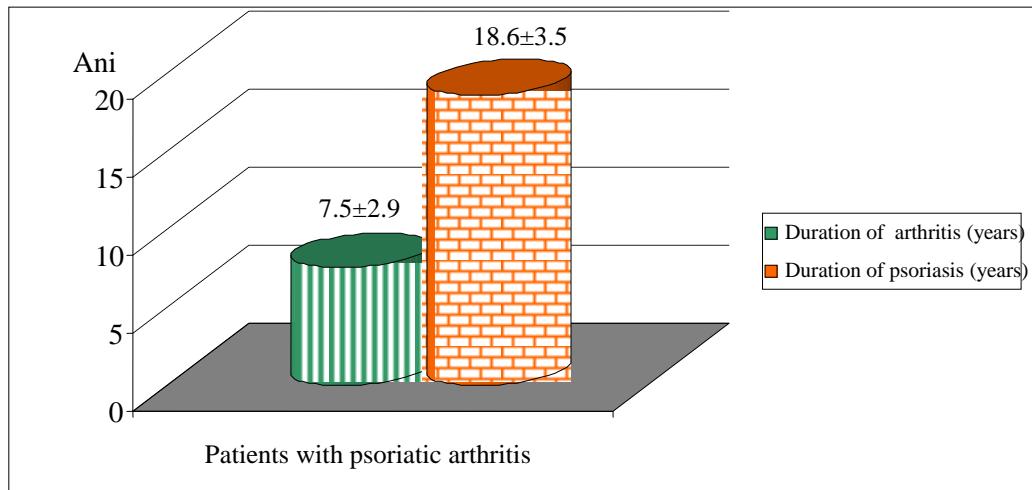


Figure 6. Analysis of inflamed joints number for psoriatic arthritis group of patients

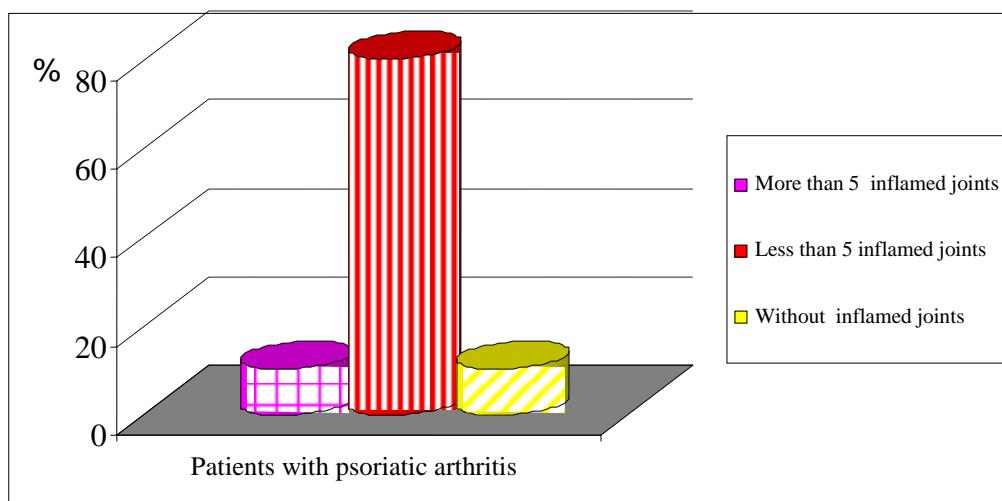


Figure 7. Analysis of deformed joints number for psoriatic arthritis group of patients

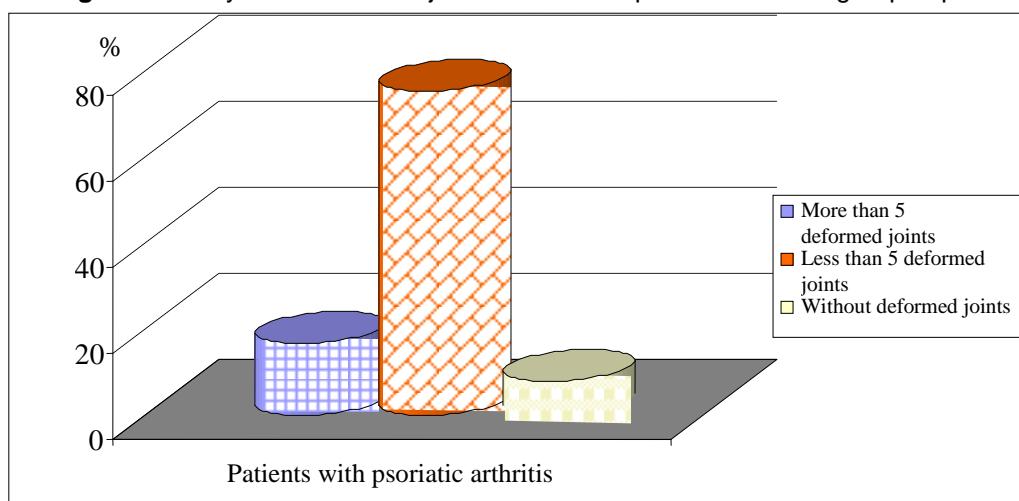
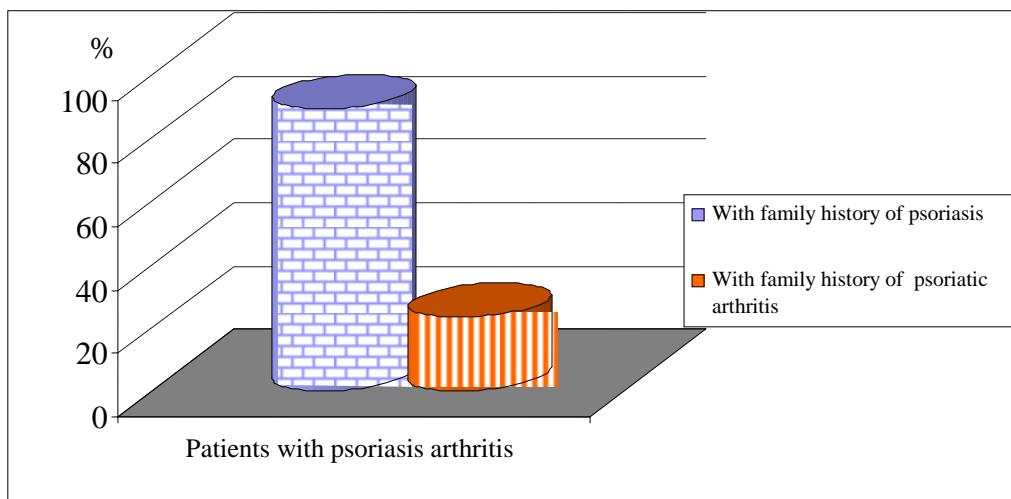


Figure 8. Analysis of family history of psoriasis and psoriatic arthritis for psoriatic arthritis group of patients



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