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ORIGINAL ARTICLE

Clinical Management of Psoriatic Arthritis in Spain: The CALIPSO Study

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KEYWORDS
Psoriatic arthritis;
Patient care and management;
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Abstract

Objective: To describe the clinical management of psoriatic arthritis for patients being treated by dermatologists and rheumatologists in Spain.

Methods: Multicenter, retrospective, naturalistic observational study in which demographic and clinical variables were recorded for patients diagnosed with psoriatic arthritis. Data referred to the previous 12 months and were collected during a single visit with the physician.

Results: A total of 266 patients were enrolled; 78.1% were being treated by rheumatologists and 21.9% by dermatologists. The data covered 1138 visits. The main reason for consulting a physician was to monitor psoriatic arthritis (82.7% of the visits). The most widely used examination was to determine the tender- and swollen-joint count (73.1%). The tests most frequently ordered were acute-phase reactants: erythrocyte sedimentation rate (79.8%) and C reactive protein level (74.5%). Affected body surface area and the Psoriasis Area and Severity Index were the main assessments used by dermatologists. Rheumatologists tended to examine the joints and record biochemical markers. A disease-modifying antirheumatic drug was prescribed for 71.1% of the patients; 51.8% were prescribed a biologic agent (61.5% in combination with another treatment). Treatment approach differed by specialty and was modified if response was nil or partial (the rationale for 45.1% of all changes).

Conclusion: Differences in the management of psoriatic arthritis in dermatology and rheumatology were evident in both diagnostic and treatment approaches. These 2 specialties should cooperate to establish common practice guidelines for use in Spain.

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PALABRAS CLAVE
Artritis psoriásica;
Manejo y atención del paciente;
Patrones de práctica clínica médica

Manejo clínico de la artritis psoriásica en España: estudio Calipso

Resumen

Objetivo: Conocer el manejo clínico de los pacientes con artritis psoriásica atendidos en consultas de dermatología y reumatología en España.

Método: Estudio observacional, multicéntrico, naturalístico, retrospectivo, en el que se recogieron parámetros demográficos y clínicos de pacientes diagnosticados de artritis psoriásica. Se realizó una única visita; los datos se refirieron a los 12 meses anteriores.

Resultados: Participaron 266 pacientes, 78,1% procedentes de consultas de reumatología y 21,9% de dermatología. Se registró información de 1.138 visitas. El principal motivo de consulta fue el control de la artritis psoriásica (82,7% de las visitas). La exploración más utilizada fue el recuento de articulaciones dolorosas e inflamadas (73,1%) y las pruebas complementarias más frecuentes fueron la determinación de reactantes de fase aguda (velocidad sedimentación y proteína C reactiva) (79,8%; 74,5%). En dermatología destacó el uso del *body surface area* y el *psoriasis area severity index* como pruebas de evaluación habituales. En reumatología se utilizaron sobre todo criterios de evaluación articular y bioquímicos. El 71,1% de pacientes fueron tratados con algún fármaco modificador de la enfermedad, y el 51,8% con terapia biológica (61,5% con tratamiento combinado), observándose diferencias según la especialidad. La obtención de respuesta parcial o nula al tratamiento fue el principal motivo de modificación del mismo (45,1% de pacientes en los que hubo cambios).

Conclusión: Se evidencian diferencias en el manejo de la artritis psoriásica según especialidad, tanto en el diagnóstico como el tratamiento de la enfermedad, considerándose imprescindible la colaboración entre dermatólogos y reumatólogos para establecer protocolos de actuación comunes en el ámbito asistencial español.

Introduction

Psoriatic arthritis is a form of arthritis that can develop in association with psoriasis. This specific diagnostic entity is defined as a debilitating inflammatory joint disease that manifests in patients with psoriasis and is seronegative for rheumatoid factor.[1] This view of the disease was accepted in 1960 when the American College of Rheumatology (ACR) concluded that psoriatic arthritis is a diagnosis distinct from rheumatoid arthritis. The prevalence is uncertain but has been estimated to range between 0.3% and 1% of the population.[2] In Spain between 2% and 3% of the population and 7% of arthritis patients are estimated to have psoriasis; thus for a population of some 40 million, there would be approximately 70 000 persons with psoriatic arthritis in this country (a prevalence of 0.2% of the Spanish population).[2-4]

The incidence is similar in men and women[5] and onset is between the ages of 30 and 50 years, although persons of any age might be affected.[6,7] The course of disease involves inflammation of joints or entheses, pain, functional impairment, structural damage, and varying degrees of joint deformity. It is a chronic condition that progresses unevenly over the course of a lifetime, with clinically silent periods alternating with symptomatic ones.[7] Psoriatic arthritis can express itself with different types of joint involvement, as described by Moll and Wright in 1973.[8] Even though the frequency of each pattern of presentation has not been well established, a sign that is considered typical is inflammation of the distal interphalangeal joints.

The diagnosis of psoriatic arthritis is often clinically challenging,[9] as there are no definitive signs exclusive to this disease. Nor are there specific laboratory tests to rely on. A diagnosis is usually based on medical history, physical examination, and characteristic radiographic findings (erosion associated with bone neoformation).[9,10] If psoriasis precedes arthritis, the diagnosis can be confirmed easily, but if the onset of arthritis comes earlier, diagnosis is complicated given that many rheumatic diseases must be considered.[10] The CASPAR study group[11] has defined criteria for classifying psoriatic arthritis cases, and the diagnostic sensitivity and specificity of their system has proven high in primary care.[12]

Treatment of this condition does not currently aim to cure the disease but rather to alleviate the patient's symptoms, improve quality of life, and prevent the deterioration of joints, preserving function.[13-15] No standardized pharmacologic treatment has been established; the approach to treatment will depend on the clinical pattern, specifically the extent of skin lesions and joint involvement. Nonsteroidal anti-inflammatory drugs, disease-modifying antirheumatic drugs (DMARDs), local corticosteroid injections, systemic corticosteroids, and biologic agents are the drugs usually employed. Anti-inflammatory approaches have been shown to be effective for alleviating symptoms and controlling the manifestations

of spinal involvement and some other effects, such as oligoarthritis.[16] Patients who develop persistent peripheral joint arthritis that is unresponsive to such treatment can be put on DMARD therapy[14,16]; the effectiveness of these agents on purely axial forms of psoriatic arthritis has not been demonstrated. The availability of biologic drugs—mainly anti-tumor necrosis factor (TNF) agents—offers an alternative for patients who do not respond to either of the aforementioned approaches; biologics are used to treat both axial and peripheral forms of the disease.[14,17-19]

Optimal management of psoriatic arthritis calls for a multidisciplinary approach in which both the dermatologist and the rheumatologist participate along with the patient's primary care physician and a physical therapist. Therapeutic measures should aim to bring both skin and joint problems under control, and this requires cooperation between medical specialties.[20] The absence of evidence on which to base the management of this disease and assess its impact in routine clinical practice suggests that new studies should be undertaken to update approaches from the perspectives of both rheumatology and dermatology. The main objective of this study was to obtain current data on the clinical management of psoriatic arthritis based on cases now being treated by dermatologists and rheumatologists in Spain.

Methods

This observational multicenter cross-sectional study was carried out in naturalistic settings. We retrospectively reviewed 12 months of records for a cohort of patients diagnosed with psoriatic arthritis who were being treated by specialists in Spanish dermatology and rheumatology clinics. The study was approved by the clinical research ethics committee of Hospital Clínic i Provincial de Barcelona.

Table 1 Geographic Distribution of Participating Specialists

Area	No. of Centers	% of Total
Andalusia	18	20.0
Aragon	2	2.2
Asturias	2	2.2
Balearic Islands	0	0.0
Canary Islands	1	1.1
Cantabria	0	0.0
Castile and Leon	5	5.6
Castile-La Mancha	8	8.9
Catalonia	16	17.8
Community of Valencia	10	11.1
Extremadura	3	3.3
Galicia	4	4.4
La Rioja	2	2.2
Community of Madrid	9	10.0
Community of Murcia	4	4.4
Navarre	0	0.0
Basque Country	6	6.7
Total	90	100.00

Dermatologists and rheumatologists were selected to be representative of specialists working in public health care systems (secondary referral clinics or hospitals) throughout Spain (Table 1). Enrollment was consecutive, as individuals with a diagnosis of psoriatic arthritis visited either type of specialist between January and June 2007. The study design called for gathering information in a single visit, during which the patient was enrolled after giving written informed consent.

The interviewing specialist took a medical history and reviewed the patient's records, gathering 12-months' data on specific variables as follows: a) sociodemographic information (sex, date of birth, educational level, working status, ethnicity, and residence); b) general clinical information (dates of diagnosis of psoriasis and onset of symptoms, initial presentation, family history, and concomitant diseases); and c) disease-specific clinical information (reason for the visit, treatment prescribed for psoriatic arthritis, disease assessment parameters).

Statistical Analysis

Statistics, including descriptive statistics for the main sociodemographic and clinical variables, were compiled for the sample as a whole and for groups treated by different specialists (rheumatologists or dermatologists). Management of psoriatic arthritis was described by recorded reasons for visits and treatment prescribed over a 12-month period. The level of severity was recorded according to various disease assessment parameters. Depending on the variable studied, the unit of analysis might be either the patient or the visit to the physician.

Analyses were performed with SPSS software, version 15.0 for Windows. All comparisons between datasets assumed a level of statistical significance (α) of .05.

Results

Data were collected by 91 participating researchers; 70 were rheumatologists and 21 were dermatologists. Of the 266 patients included as valid cases, 208 were enrolled in rheumatology clinics (78.1%) and 58 were from dermatology clinics (21.9%); 164 (62.1%) were men and 100 (37.9%) were women. The mean (SD) age was 48.4 (12.7) years (range, 19-88 years). No sociodemographic differences were detected between the patients recruited by rheumatologists and dermatologists.

Clinical Characteristics

A mean (SD) of 16.9 (11.5) years had elapsed since the diagnosis of psoriasis. On enrollment in the study, a mean of 10.7 (8.4) years had elapsed since the onset of symptoms of psoriatic arthritis; a mean of 8.9 (6.8) years had passed since diagnosis. No significant differences in these times were observed between specialties.

Asymmetric oligoarthritis (50.6%) was the most frequent form at onset, followed by symmetric polyarthritis (29.4%) (Table 2). In this case, there were significant differences between patients according to type of treating specialist.

The usual form of onset for rheumatology patients was asymmetric oligoarthritis (57.0%, vs 27.6% for dermatology patients; $P<.001$). Polyarthritis was the most frequent form of presentation for dermatology patients (36.2%, vs 27.5% for rheumatology patients), but the difference was not significant.

Over 90% of the patients had a family history of psoriasis (Table 2). More patients consulting dermatologists (96%) reported a family history than did those consulting rheumatologists (88.4%) ($P<.05$). The most frequent concomitant diseases were endocrine and metabolic disorders (33.6%), followed by musculoskeletal (16%) and gastrointestinal or liver (15.3%) diseases. No differences between patients seen by rheumatologists and dermatologists were observed in this regard (Table 2). However, this information was recorded for only half the patients.

Management of Symptoms and Treatment

Data were obtained during 1138 visits (77.8% with rheumatologists and 22.2% with dermatologists). Visits were most often for follow-up (82.7%) or the interpretation of test results (19%).

Tests performed over the 12-month study period are summarized in Figure 1. The most commonly ordered test was determination of the erythrocyte sedimentation rate (79.8% of the cases), followed by testing for C-reactive protein level (74.5%) and painful and swollen joint counts (73.1%). With the exceptions of assessments of the affected body surface area (BSA) and the Psoriasis Area and Severity Index (PASI), which were included more often by dermatologists than rheumatologists (49% and 56.5% for the BSA and PASI, respectively, in dermatology visits vs 5% and 4.1%, respectively, in rheumatology; $P<.001$), tests were generally ordered more often by rheumatologists ($P<.001$). The only 3 variables for which there were no significant differences between practices in the 2 specialties were in the use of 2 response indexes from the ACR (the 20% improvement criteria [ACR20] and the psoriatic arthritis response criteria [PsARC]), and a set of other unspecified tests.

Dermatologists recorded both BSA and PASI scores in fewer than 40% of the visits; the PASI score was used more often (58.9%) than the BSA (51%). In almost 30% of the cases, however, the dermatologist assessed neither. Rheumatologists recorded neither the BSA nor the PASI score in over 90% of the visits (Figure. 2).

Various types of treatment, whether alone or in combination, were prescribed over the 12-month period. Medications were grouped in 3 categories: (i) DMARDs, (ii) anti-TNF drugs, and (iii) other treatments for psoriatic arthritis. The frequency of prescription of these drugs by rheumatologists and dermatologists is shown in Figure 3. Some type of DMARD was prescribed for the largest percentage of patients (71.1%) and some type of anti-TNF drug was used for slightly over half (51.8%). A large proportion of prescribed treatments

Table 2 Principal Clinical Characteristics of Patients With Psoriatic Arthritis Included in the Study

	Dermatology, %	Rheumatology, %	Total, %
Pattern at onset[a]			
Asymmetric oligoarthritis ($P<.001$)	27.6	57.0	50.6
Symmetric polyarthritis ($P=.210$)	36.2	27.5	29.4
Spondylitis ($P=.095$)	20.7	12.1	14.0
Deforming arthritis ($P=.060$)	3.4	0.5	1.1
Distal interphalangeal arthritis ($P<.001$)	25.9	3.9	8.7
Other ($P=.295$)	3.4	7.2	6.4
Family history			
Psoriasis ($P=.037$)	96.8	88.4	90.6
Psoriatic arthritis ($P=.455$)	0.0	2.3	1.7
Rheumatoid arthritis ($P=.455$)	0.0	2.3	1.7
Ankylosing spondylitis ($P=.628$)	3.2	2.3	2.6
Other rheumatic diseases ($P=.289$)	0.0	4.7	3.4
Concomitant diseases[a]			
Respiratory ($P=.051$)	20.7	7.8	10.7
Neoplastic ($P=.095$)	10.3	2.9	4.6
Infectious ($P=.108$)	10.3	2.9	4.6
Endocrine-metabolic ($P=.301$)	24.1	36.3	33.6
Gastrointestinal or liver ($P=.741$)	17.2	14.7	15.3
Psychiatric ($P=.777$)	13.8	11.8	12.2
Musculoskeletal ($P=.153$)	6.9	18.6	16.0
Other ($P=.581$)	44.8	52.0	50.4

[a]Items with multiple possible responses.

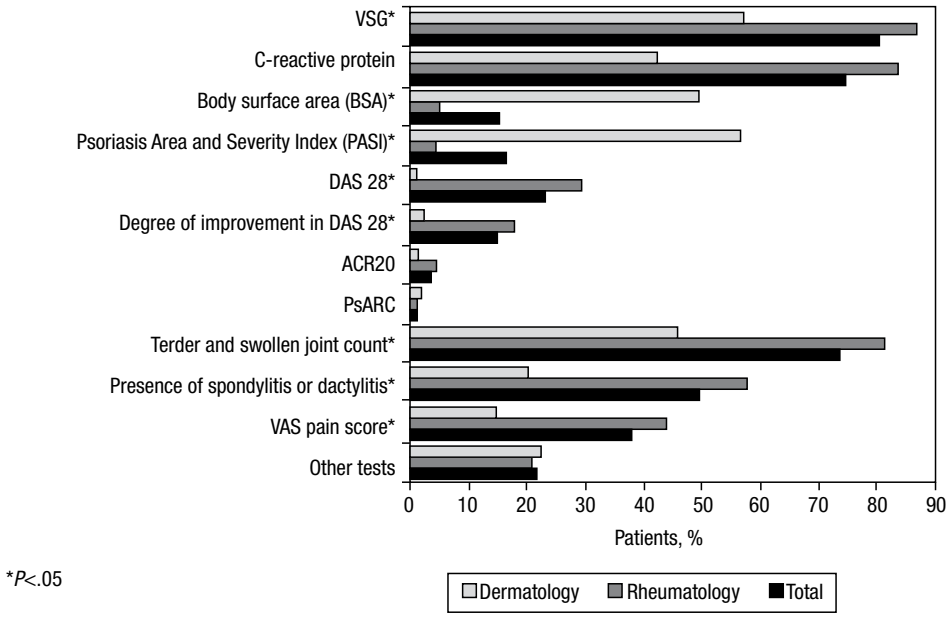

Figure 1 Tests ordered or carried out during specialist visits over the period of 12 months, for the entire group and by specialty. ESR indicates erythrocyte sedimentation rate; DAS, disease activity score; ACR20, the 20% improvement criteria of the American College of Rheumatology; PsARC, the psoriatic arthritis response criteria of the American College of Rheumatology; VAS, visual analog scale.

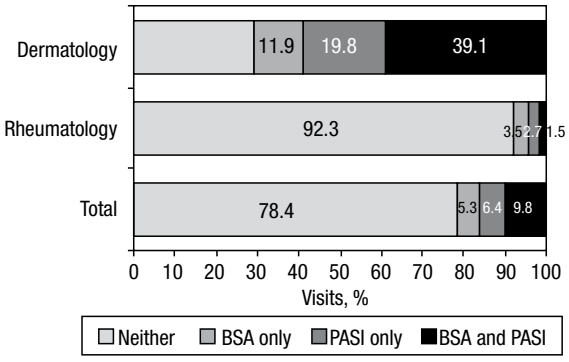

Figure 2 Frequency of recording of affected body surface area (BSA) and/or a Psoriasis Area and Severity Index (PASI) during a specialist visit. Data are shown for the entire group and by specialty.

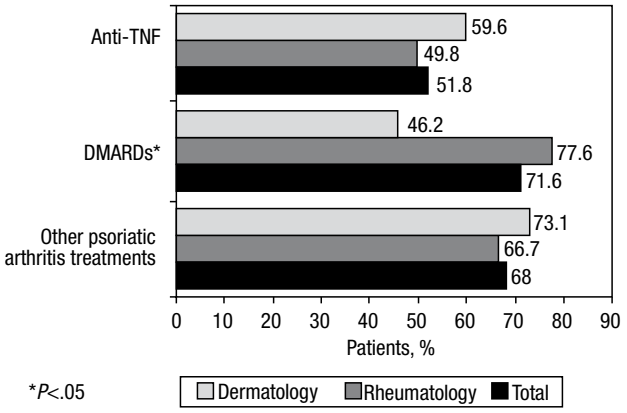

Figure 3 Frequency of treatments prescribed during the 12-month study period, for the entire group and by specialty. DMARDs indicates disease-modifying antirheumatic drugs; TNF, tumor necrosis tumor.

fell into the category of other treatments for psoriatic arthritis, which included nonsteroidal anti-inflammatory drugs or corticosteroids. Analysis of prescribing practices between the specialties revealed significant differences in the use of DMARDs ($P<.001$). Over three quarters (77.6%) of the rheumatologists prescribed these drugs, whereas dermatologists wrote DMARD prescriptions for fewer than half their patients. Regarding anti-TNF agents, there was a nonsignificant trend toward more frequent prescription by dermatologists (59.6%) than by rheumatologists (49.8%).

At the time of a visit, 61.5% of the patients were receiving combined treatment; this was the case often in rheumatology clinics, where only 37.3% of patients were on a single drug (vs 43.5% of patients enrolled by dermatologists). Regardless of whether monotherapy or combination therapy was prescribed, the drugs most commonly used by both types of specialist were methotrexate (27.9%) and etanercept (17.7%). The combination most often prescribed was etanercept and methotrexate (4.6%) for the group overall. The second most common combination was methotrexate with diclofenac (3.3%). Treatment had to be

withdrawn or changed in some cases, for various reasons. Of a total of 229 patients whose treatment had to be changed during the 12-month period, the reason was lack of response or inadequate response in 45.1% of the cases; no between-specialty differences were observed.

Discussion

Psoriatic arthritis is a highly incapacitating inflammatory disease that can be treated in various ways depending on a patient's profile and the signs and symptoms that are present.[5,14,15] Treatment approach may vary by type of medical specialist to whom the patient has been referred. Although initially an equal number of dermatologists and rheumatologists agreed to participate, more than 75% of the final sample of physicians were rheumatologists; the recruitment rates were similar in the 2 groups. This pattern, which may reflect the actual clinical situation of psoriatic arthritis care in Spain, suggests that although many patients with this disease are diagnosed by dermatologists based on skin manifestations, the diagnoses are confirmed and the patients are thereafter followed by rheumatologists.

No differences in sociodemographic and clinical profiles were observed between patients treated by the different types of specialist. The mean age (48 years) was completely consistent with the expected age of patients with this disease, in which onset is usually between the ages of 30 and 50 years.[6,7] In this study, most patients, who were predominantly men, had been diagnosed with psoriasis years before psoriatic arthritis developed, and this observation was also consistent with the pattern reported in the literature.[21] Ninety percent of patients in our study had a family history of psoriasis. That percentage is higher than the rates of 35% to 50% reported by other authors.[22,23] However, the low rate of collection of this information by the participating physicians (only half of whom recorded answers to this question) limits the utility of this observation; the high rate of family history may indicate that negative responses were not reported.

In spite of similarities observed between specialties, it is noteworthy that the pattern of onset of disease differed. The disease generally presented with asymmetric oligoarthritis (50.6%) in rheumatologist-treated patients; their second most common pattern at onset was symmetric polyarthritis (29.4%). The findings of previous studies[10,24] are consistent with this pattern of onset seen in rheumatology. In dermatology, however, polyarthritis was the most common pattern at presentation. A German study of the prevalence of psoriatic arthritis treated by dermatologists also found polyarthritis to be a more common pattern (58.7%) at onset than oligoarthritis (31.6%).[25] Our observations for dermatologists are consistent with that study.

Different criteria used to define and classify psoriatic arthritis make comparisons between studies difficult. Moreover, the pattern of joint disease varies over the course of disease, which may begin with oligoarthritis and progress to other forms in an individual. Consistent diagnostic criteria and disease classifications must be used if studies are to be compared and data collected on both skin and joint involvement. In our study, no information about skin disease (PASI, BSA) was available for most of the rheumatologist-treated patients, making it impossible for us to study the relation between skin and joint involvement, even though an association between extensive skin lesions and the onset of psoriatic arthritis has been reported.[22,25] It is also important to differentiate psoriatic arthritis from other joint disease, such as degenerative arthritis or traumatic lesions that might also be present in patients with psoriasis. An Italian study of 939 patients with psoriasis found that 39.6% of those who reported joint pain did not meet the European Spondyloarthropathy Study Group's criteria for a diagnosis of psoriatic arthritis.[26]

On analyzing the physicians' use of tests and assessment tools, we saw that dermatologists applied those related to the skin (BSA and PASI) significantly more often than rheumatologists did. Rheumatologists ordered determination of acute-phase reactants and evaluated joint involvement more often. Such differences undoubtedly reflect protocols typical for the specialty. Overall, dermatologists followed cutaneous manifestations of psoriatic arthritis whereas rheumatologists were concerned with the degree of joint involvement, assessing skin manifestations only secondarily. This observation was confirmed by the fact that BSA and/or PASI findings were noted in around 70% of visits with dermatologists and fewer than 10% of visits with rheumatologists.

From our findings on the therapeutic management of psoriatic arthritis, we can conclude that drugs are generally prescribed in combination. DMARDs are the drugs prescribed most often in association with another treatment; this approach was more frequent among rheumatologists. Biologics, specifically anti-TNF agents were being prescribed to around half of all the patients with psoriatic arthritis, although their use in dermatology was more frequent. As biologics have been shown to be highly effective when other treatments fail,[14,27,28] this finding would indicate that most of these patients have moderate to severe disease. The significantly greater use of DMARDs in rheumatology is consistent with the recommendations of the Spanish rheumatology association for the use of biologics in spondyloarthropathies[29]; those guidelines call for use of DMARDs as a first-line treatment for arthritis in peripheral joints, either alone or in combination, and that anti-TNF agents should be used if other DMARDs fail.[7,18]

Our analysis makes clear that there are differences in the clinical management and follow-up of psoriatic arthritis according to whether patients attend a rheumatology or dermatology clinic. The lower number of dermatologists finally participating in this study may indicate that fewer psoriatic arthritis patients are treated by these specialists. Additionally, we have seen that joint involvement becomes the primary concern when patients are treated by rheumatologists, whereas dermatologists attend more assiduously to managing the skin lesions that are associated with the joint disease. These differences in clinical management probably reflect variations

in screening and diagnostic approaches to psoriatic arthritis in these specialties. We did not see substantial differences in the 2 groups' management of therapy, however, other than the more frequent use of DMARDs by rheumatologists.

In conclusion, consensus on how to approach the management of psoriatic arthritis is lacking in Spain. We believe that more dialog between rheumatologists and dermatologists is needed. Standardized, multidisciplinary practice guidelines should be developed. They should cover diagnostic protocols, classification, and the management of symptoms and treatment. Criteria for referral should also be addressed, with the aim of providing excellent care that leads to better quality of life for patients with psoriatic arthritis.

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Conflict of Interest

Dr J.L. López Estebaranz has participated in clinical trials and courses funded by Abbot, Wyeth, Shering-Plough, and Janssen-Cilag. Dr P. Zarco Olivo has participated in clinical trials funded by Abbot, Wyeth, Shering-Plough, and Novartis. Dr J.F. García Llorente has participated in trials funded by Novartis, Pfeizer, Roche, Wyeth, and Shering-Plough. Dr C. García Calvo works in the Medical Department of Wyeth. The remaining authors declare that they have no conflicts of interest.

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