Psoriatic arthritis: a dermatologist’s perspective

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Summary

Psoriasis is a complex disease involving skin, nails and musculoskeletal structures. The proportion of psoriatic patients developing PsA ranges from 6 to 42%. Psoriatic arthritis (PsA) affects peripheral joints, entheses, the synovial sheaths of tendons and the axial skeleton. PsA is classified in the spondylarthropathy (SpA) complex together with primary ankylosing spondylitis, reactive arthritis, arthritis associated with inflammatory bowel disease and forms that fail to meet criteria for definite categories, which are designated as undifferentiated SpA. Although PsA was formerly considered a mild disease, recent evidence has been gathered indicating that PsA is erosive and deforming in 40-60% of patients, with bone damage arising in the first years after disease onset. Patients with PsA suffer from decreased quality of life (QoL), pain and functional impairment and have a significant increase in mortality compared with the general population. The early diagnosis of PsA has now become a challenging topic, as early treatment could avoid irreversible damage and joint deformities. Dermatologists are strongly encouraged to actively look for signs and symptoms of PsA at each visit. If PsA is diagnosed, treatment should be initiated to alleviate signs and symptoms of PsA and prevent structural damage.

KEY WORDS: psoriatic arthritis; dermatologist; psoriasis; early diagnosis; enthesitis.

Psoriatic Arthritis (PsA) can be defined as an inflammatory entheso-arthro-osteopathy, occurring in subjects with psoriasis or with a predisposition to psoriasis (1), which may involve both peripheral and axial osteo-articular compartment and may be responsible for extra-articular manifestations – this being a very interesting aspect that opens the way to a wider concept of “psoriatic disease” – in which different areas are involved, including skin, bone, joints, nails, gastrointestinal system, uvea, liver and even endothelium from a wider pathogenetic point of view. With regard to epidemiology, the disease mostly affects patients within the 30- to 50-year age range, the highest prevalence being seen in Northern Europe and the lowest in Japan; while if we consider the prevalence of PsA in patients with psoriasis, data is rather variable, ranging from 2 to 42% of the cases examined (2-4). The most recent study conducted in Italy on the prevalence of PsA in patients with psoriasis – using CASPAR (Classification of Psoriatic Arthritis Group) classification criteria – calculated a prevalence of 39.7% (5), while the study carried out bySalvarani et al. published in 2005, in which two different diagnostic classification criteria were used, estimated a prevalence of 22-24%; an analysis performed at the outpatient clinic specialized in the treatment of psoriasis in the city of Verona showed an estimated PsA prevalence of 43% in 2046 patients who were followed for psoriasis during the period from June 2006 to April 2012: the reason why the prevalence observed is higher than published estimates could be, in this case, the close cooperation in the outpatient clinic between dermatologists and rheumatologists, resulting into a possible higher diagnostic sensitivity of early PsA signs and symptoms. Another important aspect emerging from the analysis of the data observed in Verona, is that the mean age of psoriasis diagnosis is estimated to be approx. 39 years while that of PsA is 49 years; this data seems to show a clinical “latency” of PsA as compared to psoriasis onset. The published literature on this topic seems to confirm this observation, since it shows that in approx. 84% of the cases skin symptoms may precede joint symptoms (6) (Figure 1). This is very important from a dermatologist’s perspective since these specialists are in charge of the management of outpatients with psoriasis and, therefore, they can “monitor” the clinical onset of the disease thus providing an early diagnosis of PsA signs and symptoms. This observation shows that it is increasingly necessary to set up outpatient pathways shared with rheumatologists since early diagnosis and treatment of PsA are important in the prevention of joint damage onset, also improving long-term outcomes (7, 8). This was demonstrated by the study by Gladman et al.
published in 2011 in which two groups of patients were followed prospectively: the first group included patients diagnosed and treated for PsA within two years from disease clinical onset, while the second group included patients who were diagnosed and treated after two years; the study showed that patients belonging to the second group had a higher rate of progression of PsA-related joint damage (8).

Another crucial concept discussed in a number of studies, especially in European trials (9,10), is that PsA is often underdiagnosed in patients with psoriasis followed within a dermatological setting. This should encourage a greater sensitivity of dermatologists in identifying appropriate and useful clinical tools for PsA early diagnosis, and strengthen their cooperation with rheumatologists in order to improve PsA diagnostic and therapeutic appropriateness.

Always with regard to diagnosis, in 2012 Marchesoni et al. (11) published a sort of diagnostic algorithm for PsA – used in the screening of outpatients followed in specialized clinics for the treatment of psoriasis – based on the identification of the medical and family history suggestive of psoriasis and/or the presence of nail psoriasis or active psoriasis, associated with a clinical and/or radiological inflammatory involvement of joints, in one or more areas (peripheral arthritis, spondylitis, enthesitis, dactylitis), after excluding other rheumatologic diagnoses, including osteoarthritis, gout or fibromyalgia.

Recent data show that in order to have earlier PsA diagnoses, it is necessary to perform a periodic screening of patients with psoriasis, by means of clinical assessment – including referral to a rheumatologist, whenever necessary – laboratory (inflammatory markers) and radiologic screenings (12). With regard to the risks related to PsA onset, the first one to be considered is obesity.

A number of studies show that obesity is more common in patients with PsA as compared to controls. Moreover, obesity is a risk factor for the development of PsA as well as psoriasis (13-16). It is also particularly interesting – and this was confirmed by a number of studies – that scalp lesions, nail dystrophy and inverse psoriasis (especially those affecting the peri-anal and intergluteal areas) are associated with a higher risk of developing PsA over time (17). Therefore, it is absolutely important to pay special attention to these areas.

With regard to this, it should be reminded that up to 30% of patients with psoriasis can have exclusively nail manifestations which can be due to nail matrix or nail bed damage (18), with different scenarios: in case of matrix involvement, pitting is present (small superficial pits in the nail plate), leukonychia (white discoloration of the nail plate) onychorrhexis or sandpaper-like nails (tiny pinpoint dents).

When the nail bed is involved, onycholysis (detachment of the nail from the nail plate and whitish coloring or salmon-colored spots) and subungual hyperkeratosis occur.

Nails can also be assessed by means of ultrasonography: a normal nail would show its typical aspect with a bilaminar structure (the superior nail plate is the nail bed and the inferior one is the bone); in a subject with psoriasis with nail involvement, this typical structure is altered and the nail bed is thickened (Figure 2) (19).

Ongoing studies show that nail plate thickening, exceeding a specific limit, may suggest psoriasis independently from the presence of nail psoriasis when the assessment is made. The nail plate is intimately and anatomically connected with extensor tendon: nail involvement is closely associated with extensor tendon enthesopathy. Therefore, nail psoriasis seems to be intimately connected with enthesopathy (20). Also enthesopathy – even in its subclinical form – is currently very much studied since it seems to be a factor predicting PsA development in patients with psoriasis (21).

In conclusion, dermatologists may play a major role in the early diagnosis of PsA and screening strategies include consultation with rheumatologists, use of questionnaires, literature-validated biomarkers as well as...
the study of enthesopathy – even subclinical – by means of specific ultrasonography.

References


