

# Psoriasis and Psoriatic Arthritis. Dermatological and Rheumatological Co-operative Clinical Report

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Six hundred and forty-seven patients with psoriasis were studied in order to define prevalence and clinical features of psoriasis and psoriatic arthritis. After medical history review all patients were observed by a dermatologist and a rheumatologist. Successive laboratory tests and radiological and scintiscan examinations of joints were also performed. Diagnosis of arthritis was made according to Wright and Moll. In our district, the prevalence of psoriasis in respect to other dermatological diseases was 1.86%. Vulgaris pattern occurred in 85% of the total cases while eruptive was found in 10.5%. Erythrodermic and pustular forms were uncommon, occurring in 2.47% and in 1.23%, respectively. In 84.8% of the total cases, psoriasis onset was clinically evident while in 10.8% it affected non-evident cutaneous sites. Onyco-pathic onset occurred in 4.3%. Altogether 138 psoriatic patients exhibited arthritis and spondylitic and polyarticular patterns were very common (occurring in 42.7% and 33.3%, respectively). Psoriasis antedated arthritis in 68.4% of the cases but followed it in 21%. Synchronous onset occurred in 10.8%. The data obtained strengthen those of our previous reports. In particular, the marked articular involvement of psoriatic patients is confirmed. Moreover, our results, when compared with data of other authors, show a different distribution among the arthritic subtypes.

In 1982, a dermatological and rheumatological co-operative clinical study on prevalence of arthritis in psoriatic patients was started. Preliminary results on 180 subjects are reported in previous articles (1, 2). Afterwards, particular clinical aspects on this topic were treated (3, 4, 5). So far, 647 psoriatic patients have been observed and in this paper the results of this clinical survey are reported.

## PATIENTS AND METHODS

Six hundred and forty-seven patients with psoriasis (313 F and 334 M, mean age 43.1 yrs, range 9-78) (Table I) have been studied in our district in order to define prevalence and clinical features of psoriasis and psoriatic arthritis. After a

medical history review, all patients were observed by a dermatologist and a rheumatologist. Onset, localization and extent of cutaneous and articular lesions were recorded. Arthritic activity was defined on the basis of the following: severity of pain, duration of early morning stiffness, number of affected joints and presence of deformities and ankylosis. The latex test (6) and the hemoagglutination slide test (7) were used to detect rheumatoid factor. A microlymphocytotoxicity technique was used to type for HLA B27 antigen (8). Hands, elbows, shoulders, hips, knees, ankles, feet, spine and sacroiliac joints were examined radiologically. Antero-posterior and oblique views of the pelvis were used for radiological assessment of sacroiliac joints and their involvement was grading according to the New York criteria (9). Scintiscan examination of sacroiliac joints completed the radiological study.

## DERMATOLOGICAL RESULTS

In our district, prevalence of psoriasis in respect to other dermatological diseases was 1.86%. Vulgaris pattern occurred in 85.0% of total cases while eruptive was recorded in 10.5%. Erythrodermic and pustular forms were uncommon, occurring in 2.47% and 1.23%, respectively (Table II). Evident skin and/or nail involvement was observed in 84.8% of the total psoriatic cases while only in 10.8% did psoriasis affect non-evident cutaneous sites (in particular the scalp). Onyco-pathic onset occurred in 4.3% of the total cases.

## RHEUMATOLOGICAL RESULTS

According to clinical and laboratory diagnostic criteria detailed by Wright & Moll (10), 138 psoriatic patients exhibited arthritis (prevalence of arthritis 21.3%) (Table III). Psoriasis antedated arthritis in 68.4% of the cases but followed it in 21%. Synchronous onset occurred in 10.8%. In accordance with Moll & Wright (11), the following five broad clinical forms of arthritis have been recognized (Fig. 1):

*Distal interphalangeal (DIP) arthritis* occurring in 9.42% of total arthritic cases (13 patients, 5F and 8M, mean age 53 yrs, range 40-68). This form was characterized by the classical involvement of distal

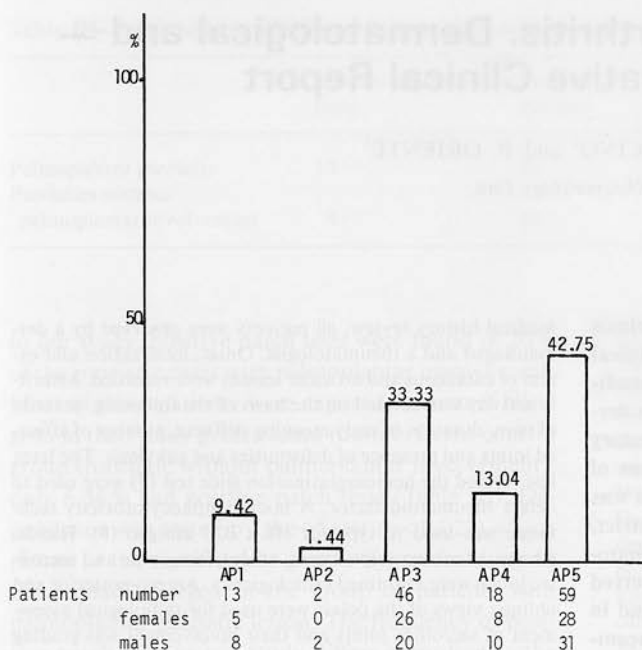


Fig. 1. Percentage distribution of 138 psoriatic arthritic cases in five subgroups according to Moll & Wright (AP1 = DIP arthritis, AP2 = mutilans form, AP3 = symmetrical polyarthritis, AP4 = oligoarthritis, AP5 = spondylitis).

interphalangeal joints, even if an associated peripheral arthritis of other sites developed with time in 6 patients with involvement of adjacent proximal interphalangeal joints in 30.8%, metacarpophalangeal joints in 46.1%, ankles in 15.3% and toe in 38.4%. A moderate involvement of spine (without sacroiliac changes) was also recorded in 20.5% of the cases.

*Arthritis mutilans.* This form was very uncommon, occurring only in two male patients and was characterized by a severe deforming involvement of phalanges and destruction of bone.

*Symmetrical polyarthritis.* This pattern was recorded in 33.3% of the arthritic cases (20F and 26M, mean age 50.6 yrs, range 23–70). Rheumatoid factor was universally absent from the serum of these patients. Moreover psoriatic polyarthritis was not usually a severe disease, producing less pain and disability

than the rheumatoid form. Fever was absent and no nodules, vasculites, lymphadenopathy, pulmonary or kidney involvement were recorded (4). Spine was affected in 30% of the cases and no sacroiliac changes were found.

*Oligoarthritis.* This form was recorded in 13% of the arthritic cases (18 patients, 10F and 8M, mean age 53.3 yrs, range 24–77) and was defined by an asymmetrical involvement of few joints. Sometimes the figure of “sausage digit” was present.

*Spondylitis.* The involvement of axial skeleton occurred in 42.7% of total arthritic cases (59 patients, 28F and 31M, mean age 41.9 yrs, range 25–58). In 23 of them a peripheral arthritis was also recorded. Therefore, three spondylitic patterns have been defined (5); the first was a pure spondylitis with the involvement of spine and sacroiliac joints. HLA B27

Table I. Characteristics of psoriatic patients

Sex	Number	Age (yrs)	
		Mean	Range
Female	313	41.4	10–78
Male	334	45.2	9–77
Total	647	43.1	9–78

Table II. Percentage distribution of morphologic features of psoriasis in 647 patients studied

Clinical patterns	Number	%
Psoriasis vulgaris	551	85.16
Eruptive	68	10.51
Erythroderma	16	2.47
Pustular	8	1.23
Other (palmoplantar)	4	0.61

Table III. Characteristics of psoriatic arthritic patients

Sex	Number	Age (yrs)	
		Mean	Range
Female	67	47.2	23-70
Male	71	49.5	25-77
Total	138	48.8	23-77

antigen was found in 50% of these patients. The second and third forms showed an overlap of axial and peripheral involvement localized in DIP joints or symmetrically diffused. The presence of HLA B27 antigen resulted markedly lower (universally absent in DIP pattern, present in 16% only of the polyarthritic cases). Clinical course of psoriatic spondylitic patients seemed less disabling than that of ankylosing spondylitis and extra-articular involvement appeared uncommon.

#### DISCUSSION

The data obtained strengthen those of our previous reports (1, 2). In particular the marked articular involvement in patients with psoriasis is confirmed. As suggested in the past this result may depend on the fact that diagnostic criteria applied are based on recognition of simultaneous presence of skin and joint involvement. Moreover, the co-operation between dermatologist and rheumatologist has permitted the identification of intriguing or unclear cases of skin or articular disease. Finally, our results demonstrate the different typology of psoriatic arthritis in Italy. In particular, when compared with those of other authors (11), our data show a different percentage distribution among arthritic subtypes (Table III).

#### REFERENCES

1. Scarpa R, Oriente P, Pucino A, Torella M, Vignone L, Biondi Oriente C. Psoriatic arthritis in psoriatic patients. *Br J Rheumatol* 1984; 23: 246-250.

2. Biondi Oriente C, Scarpa R, Pucino A, Torella M, Vignone L, Oriente P. Prevalence of psoriatic arthritis in psoriatic patients. *Acta Derm Venereol (Stockh)* 1984; Suppl. 113: 109-112.
3. Scarpa R, Oriente P, Pucino A, Cosentini E, Biondi Oriente C. The clinical spectrum of psoriatic spondylitis. *Proc. EULAR Symposium on Seronegative polyarthritis*. Rome Oct. 16, 1986; 18: 62.
4. Scarpa R, Pucino A, Vignone L, Biondi Oriente C, Oriente P. Psoriatic polyarthritis: a clinical report of 36 cases. *Clin Rheum* 1987; 6, 1: 115.
5. Scarpa R, Oriente P, Pucino A, Vignone L, Cosentini E, Minerva A, Biondi Oriente C. The clinical spectrum of psoriatic spondylitis. *Br J Rheum* 1988; 27: 101-105.
6. Singer JM, Plotz CM. The latex fixation test. *Am J Med* 1956; 21: 888-892.
7. Milgrom F, Tonder O, Lor AO. Modification of the Waaler Rose test using formalinized sheep erythrocytes. *Arthritis Rheumatol* 1964; 7: 1-8.
8. Terasaki PI, McClelland J, Min Sik Park, McCurdy B. Microdot lymphocyte cytotoxicity test. In: Ray JG, Han DB, Pederson PD, Kayot DE, eds. *Manual of tissue typing techniques*. Bethesda: NIH, 1974: 66-72.
9. Bennet PH, Wood PHN. Population studies of the rheumatic diseases. *Proc. of the 3rd International Symposium, New York, 1966*. Amsterdam: Excerpta Medica Foundation, 1968; 456-478.
10. Wright V, Moll JHM. Seronegative polyarthritis. Amsterdam: Elsevier North Holland, 1976.
11. Moll JHM, Wright, V. Familial occurrence of psoriatic arthritis. *Ann Rheum Dis* 1973; 32: 181.

#### DISCUSSION

*Carlesimo*: Is it only simply an arthropathy or does one have to call it an arthritis or an arthrosis?

*Scarpa R.*: Wright and Moll criteria confirm the diagnosis of arthritis. In some cases hyperuricaemia must be taken into account as well.

*Haftek*: Have you seen the prevalence of sternoxiphoidal arthritis in these cases?

*Scarpa R.*: No, I haven't.

*Nini*: In HLA-B27 positive cases, which kind of psoriatic arthropathy did you observe?

*Scarpa R.*: B27 pattern is frequently associated with sacroiliac (not spinal) involvement.