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## Clinical features of psoriatic arthritis

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*Clinical analysis of 27 Thai patients with psoriatic arthritis attending the Arthritis Clinic or admitted to the wards at Chulalongkorn Hospital, Bangkok, was performed. There were 20 males and 7 females, giving a male to female ratio of 2.8 : 1. The age at onset of psoriasis was between 10 to 47 years, and that of arthritis was between 8 to 51 years. In 15 patients (56%), skin and joint symptoms developed simultaneously. In 7 patients (25%), the onset of psoriasis preceded the onset of arthritis by periods ranging from 2 to 20 years. In 5 patients (19%), the arthritis preceded skin lesions by 2 to 25 years. The onset of arthritis was mono-articular in 5 patients (19%), oligo-articular in 9 (33%), and polyarticular in 13 (48%). At the time of first examination (the mean duration of arthritis was 3.97 years), 19 patients (70%) had polyarticular involvement with symmetric pattern occurring in 16; 8 patients (30%) had oligoarthritis, with asymmetric pattern occurring in 6. The joints most commonly involved were knee, distal interphalangeal, wrist, proximal interphalangeal, ankle, toe, and shoulder. Thirty per cent of the patients had deforming arthritis. Clinical evidence of sacro-iliitis was present in 40% of the cases. Spondylitis was found in 7 patients (26%), mostly involving thoracolumbar spine. Of the 27 patients, 26 had negative rheumatoid factor. The one with positive rheumatoid factor had spondylo-arthropathy.*

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ฐิตเวทย์ ตุมราศวิน, อุทิศ ดีสมโชค. ลักษณะทางคลินิกของผู้ป่วยโรคโซไรติก อาร์ไทริติส. จุฬาลงกรณ์เวชสาร 2533 มิถุนายน ; 34 (6) : 423-430

ได้ทำการศึกษาผู้ป่วยโรค *psoriatic arthritis* ในโรงพยาบาลจุฬาลงกรณ์ทั้งหมด 27 ราย พบว่าเป็นเพศชาย 20 ราย เพศหญิง 7 ราย อัตราส่วนเพศชายต่อเพศหญิงเท่ากับ 2.8 : 1 ผู้ป่วยเริ่มเกิดอาการทางผิวหนังในระหว่างอายุ 10-47 ปี และเริ่มมีอาการทางข้อในระหว่างอายุ 8-51 ปี อาการทางผิวหนังและอาการทางข้อเกิดขึ้นพร้อม ๆ กันในผู้ป่วย 15 ราย (56%) ผู้ป่วย 7 ราย (25%) เกิดอาการทางผิวหนังก่อนอาการทางข้อ และ 5 ราย (19%) เกิดอาการทางข้อก่อนอาการทางผิวหนัง ในระยะเริ่มแรกของการเกิดข้ออักเสบผู้ป่วยส่วนใหญ่ (48%) เกิดข้ออักเสบแบบ *polyarticular* 33% เกิดเป็นแบบ *oligo-articular* และ 19% เกิดเป็นแบบ *mono-articular* ในขณะที่ตรวจผู้ป่วย (ระยะเวลาเฉลี่ยของการเกิดข้ออักเสบมาแล้วเท่ากับ 3.97 ปี) พบว่าผู้ป่วยส่วนใหญ่ (70%) มีการอักเสบของข้อแบบ *polyarticular* และ 30% เป็นแบบ *oligo-articular* ข้อที่เกิดการอักเสบบ่อยได้แก่ข้อเข้าข้อนิ้วมือส่วนปลาย ข้อมือ ข้อนิ้วมือส่วนต้น ข้อเท้า ข้อนิ้วเท้า และข้อไหล่ การผิดปกติรูปร่างของข้อพบได้ 30% ของผู้ป่วย การอักเสบของข้อ *sacro-iliac* พบได้ 40% และการอักเสบของกระดูกสันหลังพบได้ 26% ซึ่งส่วนใหญ่จะเกิดที่กระดูกสันหลังส่วน *thoracolumbar* *rheumatoid factor* พบในผู้ป่วย 1 รายซึ่งมีการอักเสบทั้งที่ข้อและกระดูกสันหลัง

The association between psoriasis and psoriatic arthritis was first recognized by the French in the 19th Century. During the first half of the 20th Century there was controversy as to whether psoriatic arthritis was a separate disease entity or a variant of a rheumatoid arthritis. In recent years psoriatic arthritis has been considered to be a distinct entity rather than the coincidence of two common diseases. Several epidemiological, clinical, radiological studies and the infrequent presence of rheumatoid factor in the serum supported the concept of psoriatic arthritis, and it is now regarded as a seronegative spondyloarthropathy.<sup>(1-7)</sup> At present, psoriatic arthritis is defined as an inflammatory arthritis, usually rheumatoid factor negative, associated with psoriasis.<sup>(8)</sup>

It is now apparent from several broad clinical surveys that psoriatic arthritis has a wide spectrum of presentations, ranging from mild monoarticular involvement to rapidly destructive arthropathy.<sup>(2,8-13)</sup> Five clinical patterns of psoriatic arthritis have been described by Moll and Wright.<sup>(4)</sup> This report presents the clinical features of psoriatic arthritis in Thai patients.

### Patients and Methods

Twenty-seven patients with an inflammatory arthropathy, associated with psoriasis, attending the Arthritis Clinic or admitted to the wards at Chulalongkorn Hospital, Bangkok, were studied. The diagnosis of psoriasis was made by a dermatologist. Patients with

Reiter's syndrome, crystal-induced arthritis, osteoarthritis were excluded.

The patients were interviewed and examined by the authors. Information was obtained regarding age of onset for both skin and joint disease, relationship of onset of skin and joint involvement, pattern of joint disease at onset, duration of joint disease, and extra-articular symptoms. Examination of peripheral and axial joints and general medical examination were performed. Laboratory evaluation included complete blood counts, urinalysis, Westergren erythrocyte sedimentation rate (ESR), a slide latex test for rheumatoid factor, and radiology of involved peripheral joints, sacro-iliac joints and spine.

### Results

Of the 27 patients, 20 were males and 7 were females, giving a male to female ratio of 2.8 : 1. The ages of onset of psoriasis and arthritis are shown in Figure 1 and 2 respectively. The mean age of onset of psoriasis was 30.37 years (range 10-47 years). The mean age of onset of arthritis was 30.82 years (range 8-51 years). Figure 3 shows the relationship of onset of skin and joint involvement. Fifty-six per cent of the patients had a simultaneous onset of skin and joint disease (within one year). In 25 per cent of the patients, the onset of psoriasis preceded the onset of arthritis by periods ranging from 2 to 20 years. In 19 per cent, the arthritis preceded psoriasis by 2 to 25 years.

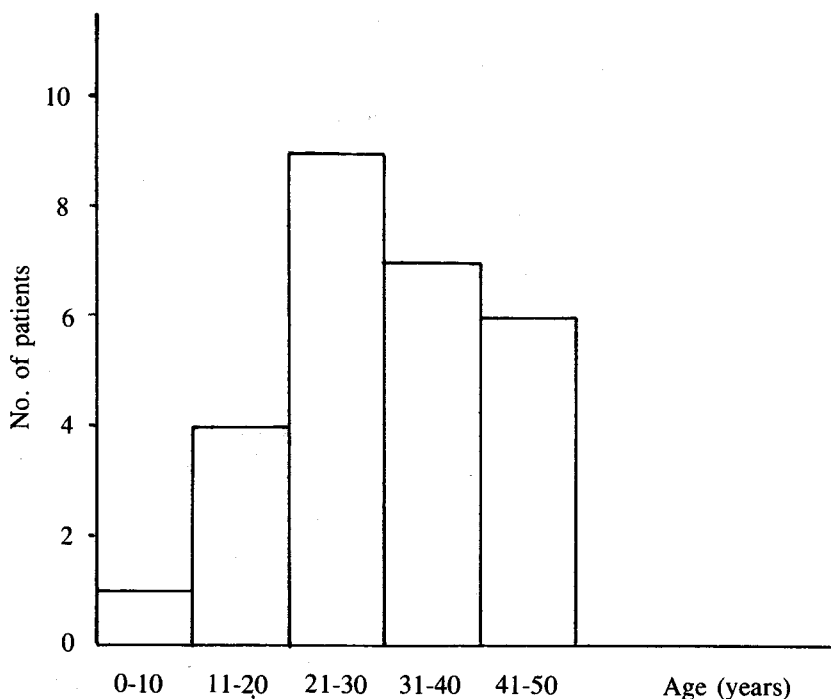


Figure 1. Age of onset of psoriasis.

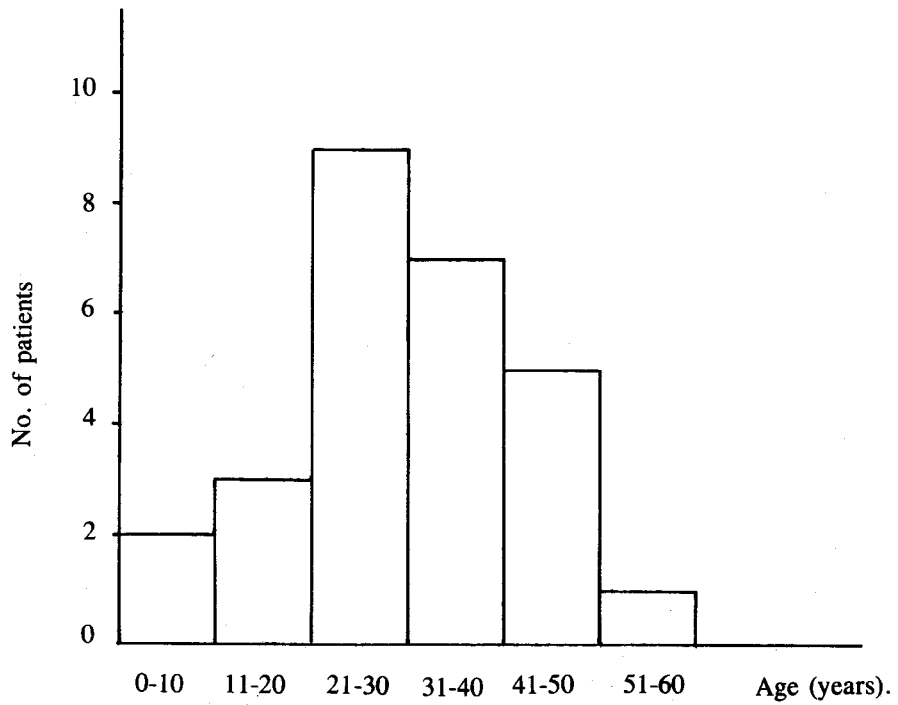


Figure 2. Age of onset of arthritis.

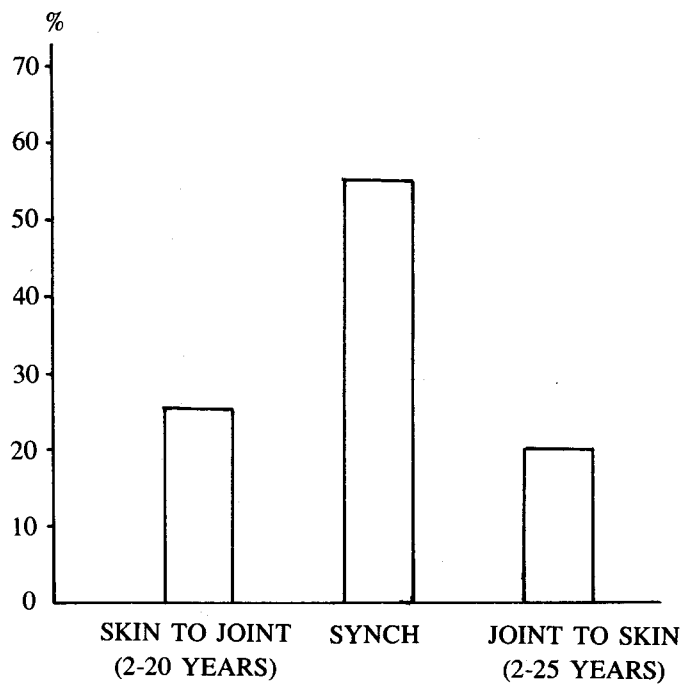


Figure 3. Relationship of onset of skin and joint involvement.

Table 1 shows the mode of onset of arthritis. The onset was mono-articular in 5 patients (19 per cent), oligo-articular in 9 (33 per cent), and polyarticular in 13 (48 per cent). Table 2 shows the pattern of arthritis at the time of first examination. The mean duration between the onset of arthritis and the first examination. The mean duration between the onset of arthritis and the first examination was 3.97 years. Eight patients (30 per cent) had oligoarthritis with asymmetric and symmetric patterns occurring in 6 (75 per cent) and 2 (25 per cent) respectively. Polyarthritis was present in 19 patients (70 per cent) with symmetric and asymmetric patterns occurring in 16 (84 per cent) and 3 (16 per cent) respectively. Clinical evidence of sacro-iliitis occurred in

11 patients (40 per cent) and 9 of the 11 patients had bilateral involvement. Ankylosing spondylitis was evident in 7 patients (26 per cent) with thoracolumbar involvement in 5, cervical involvement in 1, and both thoracolumbar and cervical involvement in 1. All patients with axial joint involvement also had peripheral joint involvement. Table 3 indicates the joints involved at the time of first examination. The joints commonly involved were knee, distal interphalangeal (DIP), wrist, proximal interphalangeal (PIP), ankle, toe, and shoulder. Deformity was detected in 8 patients (30 per cent). Two patients had achilles tendinitis and plantar fasciitis was found in 1. One patient developed anterior uveitis.

**Table 1.** Mode of onset of arthritis.

	No. of patients	%
Mono-articular	5	19
Oligo-articular ( < 4 joints )	9	33
Polyarticular ( > 4 joints )	13	48
<b>Total</b>	<b>27</b>	<b>100</b>

**Table 2.** Psoriatic arthritis pattern in 27 patients at the time of first examination (mean duration of arthritis 3.97 years).

Arthritic pattern	No. of patients	%
Oligoarthritis	8	30
asymmetry	6	75
symmetry	2	25
Polyarthritis	19	70
asymmetry	3	16
symmetry	16	84

**Table 3.** Joint involvement.

Affected joints	%
Knee	63
Distal interphalangeal	52
Wrist	41
Proximal interphalangeal	33
Ankle	33
Toe	30
Shoulder	30
Elbow	26
Metatarsophalangeal	22
Hip	19
Metacarpophalangeal	19
Temporomandibular	7

As shown in Table 4, 37 per cent of the patient had less than 11 g/100 ml of hemoglobin. Eleven patients (41 per cent) had total white cell counts of more than 10,000 per cubic millimeter, and 18 patients (67 per cent)

had more than 25 mm/hour of ESR. Rheumatoid factor was positive in one case. The patient with positive rheumatoid factor had polyarthritis and ankylosing spondylitis.

**Table 4.** Laboratory findings.

Lab. findings	No. of patients	%
Anemia ( Hb < 11 )	10	37.03
Leucocytosis ( WBC > 10,000 )	11	41.74
Elevated ESR ( > 25 mm/hr )	18	66.66
Rheumatoid factor positive	1	3.70

## Discussion

At present, psoriatic arthritis has been considered to be a distinct entity rather than the coincidence of two common diseases, psoriasis and rheumatoid arthritis. Moll and Wright described five clinical patterns<sup>(4)</sup>: (1) arthritis of the distal joints; (2) arthritis multilans; (3) symmetric

polyarthritis, indistinguishable from rheumatoid arthritis; (4) asymmetric oligoarthritis; and (5) spondyloarthropathy. Asymmetric oligoarthritis was found to be the most common type of psoriatic arthritis in many series.<sup>(2,4,13)</sup> In our series, polyarthritis was the commonest joint pattern, occurring in 70% of the patients,

and most of these patients (84%) had symmetric pattern. In a study of 220 patients by Gladman et al,<sup>(14)</sup> polyarthritis was also the most common joint pattern (61%), but patients were equally divided between those with symmetric and asymmetric patterns. DIP joint was commonly involved in this study, but we found no patient who had DIP joint involvement only.

Although a severely deforming arthritis, may occur, sometimes progressing to arthritis mutilans, it has been suggested that the majority of patients had a relatively mild arthritis.<sup>(2,12,15)</sup> In our series, deforming arthritis was present in 30% of the patients. Deformity and damage were also observed by Gladman et al in a significant number of patients.<sup>(14)</sup> Psoriatic arthritis, therefore, may not be as benign as has been suggested.

Sacro-iliitis occurs in 20-40% of patients with psoriatic arthritis.<sup>(15)</sup> In a study of 53 patients by Baker et al,<sup>(16)</sup> sacro-iliitis was present in 15 patients and it was unilateral in 5. In our 27 patients, sacro-iliitis was present in 11 (40%). It was bilateral in 9 and unilateral in 2. Ankylosing spondylitis was evident in 26% of the cases, mostly involving thoracolumbar spine. Peripheral arthritis was present in all of them.

The ratio of males to females in psoriatic arthritis varies in different surveys. In most series, psoriatic arthritis affected females slightly more frequently.<sup>(4,9,11,12,14)</sup> However, there were differences of sex ratio in different clinical subgroups of psoriatic arthritis.<sup>(11,16)</sup> Most of our patients were males (male to female ratio of 2.8 : 1). This contrasts with the 7.4 : 1 female predominance in our series of rheumatoid arthritis.<sup>(17)</sup>

In comparison with our series of rheumatoid arthritis, the average age of onset of psoriatic arthritis was younger. The mean age of onset of arthritis in this study was 30.8 years. The mean age of onset of rheumatoid arthritis in our series was 39.3 years.<sup>(17)</sup> The relationship of onset of skin and joint diseases in this study was not similar to that reported elsewhere. Usually, the skin disease precedes the arthritis. Only 10-15% of patients, the arthritis presents first.<sup>(15)</sup> In our series, most of the patients (56%) had a synchronous onset. The skin disease preceded the arthritis in 25% of the patients. In 19% of the cases, the arthritis appeared first and could only be definitively diagnosed in retrospect.

Anemia was present in 37% of the patients and 41% had leucocytosis. No one had leucopenia. Most of the patients had elevated ESR. Rheumatoid factor was positive in one patient (3-7%). This patient had polyarthritis and ankylosing spondylitis. In our series of rheumatoid arthritis, rheumatoid factor was positive in 59.4% of cases. Of the 829 normal Thai subjects, 85 (10.25%) had positive latex-fixation test.<sup>(18)</sup>

In conclusion, male preponderance was observed in our series, the average age of onset was younger than that of rheumatoid arthritis, the skin and joint disease developed simultaneously in about half of the patients, symmetrical polyarthritis was the most common joint pattern, deforming arthritis was not uncommon, and positivity of rheumatoid factor alone did not exclude the diagnosis of psoriatic arthritis.

## References

1. Wright V. Psoriasis and arthritis. *Ann Rheum Dis* 1956; 15:348-56
2. Wright V. Rheumatism and psoriasis. A re-evaluation. *Am J Med* 1959 Sep; 27(3) : 454-62
3. Wright V. Psoriatic arthritis ; a comparative radiographic study of rheumatoid arthritis and arthritis associated with psoriasis. *Ann Rheum Dis* 1961 Jan; 20(1) : 123-32
4. Moll JM, Wright V. Psoriatic arthritis. *Semin Arthritis Rheum* 1973 Aug; 3(1) : 55-78
5. Avila R, Pugh DG, Slocumb CH, Winkeimann RK. Psoriatic arthritis : a roentgenologic study. *Radiology* 1960 Nov; 75(5) : 691-702
6. Baker H. Epidemiological aspects of psoriasis and arthritis. *Br J Dermatol* 1966 May; 78(5) : 249-61
7. Ziff M. The agglutination reaction in rheumatoid arthritis. *J Chron Dis* 1957 Jun; 5(6) : 644-67
8. Wright V. Psoriatic arthritis. In : Kelly EN, Harris ED, Ruddy S, Sledge CB, eds. *Textbook of Rheumatology*. Philadelphia : W.B. Saunders, 1981. 1047-62
9. Leonard DG, O'Duffy JD, Rogers RS. Prospective analysis of psoriatic arthritis in patients hospitalized for psoriasis. *Mayo Clin Proc* 1978 Aug; 53(8) : 511-18
10. Molin L. Psoriatic arthritis, *Ann Clin Res* 1976 Oct; 8(5) : 305-11
11. Kammer GM, Soter NA, Gibson DJ, Schur PH. Psoriatic arthritis : a clinical, immunologic and HLA study of 100 patients. *Semin Arthritis*



- Rheum 1979 Nov, 9(2) : 75-97
12. Roberts ME, Wright V, Hill AGS, Mehra AC. Psoriatic arthritis. follow-up study. Ann Rheum Dis 1976 Jun; 35(3) : 206-12
  13. Scarpa R, Oriente P, Pucino A. Psoriatic arthritis in psoriatic patients. Br J Rheumatol 1984 Nov; 23(4) : 246-50
  14. Gladman DD, Shuckett R, Russell ML, Thorne JC, Schachter RK. Psoriatic arthritis (PSA) - an analysis of 220 patients. Q J Med 1987 Feb; 62(238) : 127-41
  15. Laurent MR. Psoriatic arthritis. Clin Rheum Dis 1985 Apr; 11(1) : 61-85
  16. Baker H, Golding DN, Thompson M. Psoriasis and arthritis. Ann Intern Med 1963 Jan; 58 : 909-25
  17. Tumrasvin T, Deesomchok U. A clinical study of Thai patients with rheumatoid arthritis. J Med Assoc Thai 1986 Dec; 69(12) : 649-53
  18. Vatanasuk M. Rheumatoid factor in Thai. Presented in the fourth annual joint meeting of the Thai Orthopedic Association, the Society Against Rheumatism of Thailand, the Thai Society for Surgery of the Hand, and the Thai Society of Rehabilitation Medicine; Bangkok, 14 March 1979.