

Pityriasis rosea in Sri Lanka

D N Atukorala¹ and C J Wijekoon²

Sri Lanka Journal of Dermatology, 1997, **2**, 13-17

Summary

Though pityriasis rosea is a common disorder, no study has been reported of its prevalence and clinical features and possible precipitating factors from Sri Lanka.

All new patients presenting with features of pityriasis rosea to the skin clinic of the General Hospital Colombo, in the period between May and September 1994 were studied. Of the 102 patients studied, 85 patients, who satisfied the set criteria were included in the study. This constituted 2.68% of the new patients attending the skin clinic. There were 44 males and 41 females, with ages ranging from 1.5 years to 50 years. 86.2% were between the ages of 11 and 30 years. 37 (43.5%) reported infections in the preceding three months, 31 of these being in the upper respiratory tract. A herald patch was seen in 57 (67.1%) of the patients, with the trunk being the site in 23. The average interval between the herald patch and the onset of the generalized eruption was 5.8 days. In 80 (94%) the generalized eruption occurred on the trunk. The classical "fir tree" pattern was seen in only 35 (41.2%) of the patients. Atypical morphological patterns were seen in 42 (49%) of the patients, in most in addition to the typical pattern. The average duration of the rash was for a period of 6.7 weeks.

Introduction

Pityriasis rosea is an acute inflammatory dermatosis of unknown cause, typically characterized by self limiting oval or round papulopustular lesions distributed on the trunk and extremities. Though this typical clinical pattern is characteristic many atypical patterns of morphology, distribution and duration have been described¹. Pityriasis rosea is a common disorder accounting for 1-2% of all new patients attending dermatology clinics in the United States². However no study has been reported of the

incidence, the clinical features, and possible aetiological factors of this condition in Sri Lanka.

This study was undertaken to record the incidence of pityriasis rosea in the skin clinic population and to study the clinical features, the duration, and the possible precipitating factors of this condition in Sri Lanka.

Patient and methods

All new patients presenting to the skin clinic, General Hospital, Colombo, during the period between May and September 1994, with features of pityriasis rosea were included in the study. The recent onset of scaly or oval patches, in the absence of significant constitutional symptoms, with a herald patch and a predominantly truncal distribution of the rash and the spontaneous resolution in four to 24 weeks were used as the inclusion criteria. Patients meeting three of these criteria were included.

Those with clinical features of seborrheic dermatitis, psoriasis, pityriasis lichenoides or tinea were excluded. Positive fungal scrapings or a positive serology for Syphilis and those whose clinical features on follow up showed the features of another disorder were excluded from the study. Skin biopsies from lesional skin were taken for confirmation. The patients were followed up at monthly intervals until resolution.

Results

Of the 102 patients reviewed, 85, having satisfied all the criteria were included in the study. The 17 excluded included three in whom fungi were isolated from skin scrapings, three were clinically diagnosed as photodermatitis later, two atypical patients who did not resolve even after 24 weeks and nine atypical patients who did not turn up for follow up. This constituted 2.68% of the new patients attending the skin clinic. The numbers of males and females were similar

¹Consultant Dermatologist, The National Hospital of Sri Lanka.

²Consultant Dermatologist, General Hospital Ratnapura (previously Senior Registrar, The National Hospital of Sri Lanka.)

and 83.5% of the patients were between 11 and 40 years of age (Table 1). 43.5% of the patients recalled an infection, mainly of the upper respiratory tract (Table 2), in the three months prior to the pityriasis rosea. There were no prodromal symptoms of the disease. However 56 (65.8%) complained of a mild pruritus of the rash.

Table 1. Age & sex distribution

Males – 44 (51.8%)

Females – 41 (48.2%)

Age in years	Number	Percentage
0-10	7	8.2
11-20	31	36.5
21-30	27	31.7
31-40	13	15.3
41-50	7	8.2

Table 2. Preceding events in previous three months

Preceding event	Number	Percentage
Infection—	37	43.5
URT infec	31	36.5
Viral fever	2	2.3
Rubella	1	1.2
Chicken pox	1	1.2
Hepatitis	1	1.2
Abscess	1	1.2
Trauma	1	1.2
Stress	4	4.7

A herald patch was present in 57 (67.1%) of the patients. There was in most patients a single herald patch, though 10.5% of the patients had multiple herald patches. The trunk was the site in 23 (40.3%) and the arm in 20 (35%) (Table 3). 57.9% of the herald patches were between one and five cms in area (Table 4). Following the herald patch, the generalized rash occurred suddenly in 52.9% and gradually in the others. The interval between the herald patch and the onset of the generalized eruption was known in only 51 of our patients and was less than 10 days in 90% of them (Table 5). The typical "fir tree" pattern was seen in only 41.2% of patients. The pattern of distribution of the rash shows that the trunk and arms were involved in 94% of the patients and the thighs in 84.7%.

Table 3. Sites of herald patches

Total number of herald patches – 69
(in 57 patients)

Site	Number	Percentage
Trunk	23	40.3
Arm	20	35
Thigh	10	15.8
Neck	4	7
Face	2	3.5
Foot	1	1.7

Table 4. Size of the herald patches

Size in 3q cms	Number	Percentage
0-1	13	18.8
> 1-5	40	57.9
> 5-10	14	20.3
> 10	2	2.5

Table 5. Interval between the herald patch and the generalized rash
(known in 51 of 57 patients)

Interval in days	number	Percentage
1-5	28	54.9
6-10	18	35.3
11-15	3	5.9
16-20	1	2
21-25	0	0
26-30	1	2
Average – 5.8 days		

Unusual areas of involvement included the face (18.8%), palms in five patients and the oral mucosa in four patients (Table 6). The rash was localized to certain areas in 5.9% of patients.

Table 6. Generalized eruption

Area involved	Number of patients	Percentage
Neck	50	58.8
Trunk	80	94
Upper arm	80	94
Forearm	51	60
Thigh	72	84.7
Leg	19	22.3
Face	16	18.8
Palms	5	5.8
Oral mucosa	4	4.7

The characteristic lesions of pityriasis rosea – the medallions – were found in 76 (89.4%) of the patients. Of these 34 were oval in shape, 11 were circular and the remaining 31 had both oval and circular patches. The characteristic collerette of scale was present in 71 (93.4%) and the red rim in 53 (69.7%). The center of the medallions were wrinkled in 48, atrophic in 4, erythematous in 16, and hypopigmented in 11 of the patients.

Atypical morphological patterns of pityriasis rosea were seen in 42 of the patients. Papular, papulo-vesicular, urticarial, purpuric, erythema multiforme like and lichenoid lesions were seen (Table 7). The majority of the atypical lesions occurred in addition to the presence of typical medallion lesions. However in 10 patients atypical lesions were seen without the presence of the typical lesions. One patient had eight large macules and plaque like lesions. He had a herald patch of 2.5 cms diameter and also had typical medallions. The lesions healed in 11 weeks. Another patient who initially presented with a herald patch and typical medallions later developed an erythroderma. His eruptions healed in seven weeks.

Table 7. Atypical morphology

<i>Atypical morphology</i>	<i>Number in addition to typical medallions</i>	<i>Number without typical medallions</i>
Papular	15	0
Papular & vesicular	3	2
Papular & urticarial	8	3
Papular, purpuric & urticarial	3	0
Papular, vesicular & EM like	1	0
Papular, urticarial & EM like	1	0
Papular & EM like	1	0
Papular & lichenoid	0	2
Purpuric & urticarial	0	2
Papular, urticarial & lichenoid	0	1

Oral lesions were seen in four (4.7%) patients. All of them had the typical lesions of pityriasis rosea elsewhere. The changes seen were haemorrhagic puncta in three of the patients, erythematous macules in one and superficial ulcers in another.

Only two patients reported having had a previous episode of a similar disease. One was a nurse whose previous attack two years back was diagnosed as a pityriasis rosea by a dermatologist and the other a schoolboy who described a similar rash which healed within a few weeks, one year ago.

The average duration of the rash in our patients was 6.7 weeks, with the rash healing within 10 weeks in 80% of the patients followed up (Table 8). In one patient the rash lasted 16 weeks. The rash reached it's maximum in a period of an average of 3.2 weeks. Post inflammatory hypopigmentation was seen in 11 (12.9%) of patients and hyperpigmentation in 29 (34.1%).

Table 8. Duration of rash

<i>Duration in weeks</i>	<i>Number</i>	<i>Percentage</i>
0-5	30	35.3
6-10	38	44.7
11-15	8	9.4
16-20	1	1.1

Average duration of rash – 6.7 weeks

Maximum rash seen – 3.2 weeks (average)

Discussion

The incidence of 2.68% of first visit patients in our study is higher than other studies though the incidence at different dermatology centers has varied between .3 and 3%. The high incidence could be due to our special interest in pityriasis rosea during this period resulting in increased references of this disease to this clinic. However a high incidence has also been seen in a series from Nigeria³. The disease was equally common in the two sexes in this study, agreeing with previous studies from Sweden⁴ and England⁵. However a large study in Minnesota² showed a female to male ratio of 1: 1.5. The 83.5% of cases occurring between the ages of 10 and 40 years, concurs with the most previous studies. Pityriasis rosea is uncommon in the very young and the very old, though it has been described in infants as young as three months of age⁶. The youngest patient in this study was 1.5 years old.

43.5% of our patients recalled some infection mainly upper respiratory in the previous three months. Infections, especially respiratory, in the three months preceding the diagnosis of pityriasis

rosea was said to be significantly commoner than in controls⁷. However there was no excess of preceding or concurrent infection in some other studies^{5,8}.

Though in approximately 5% of all patients, prodromal symptoms such as headache, malaise, arthralgia, chills, nervousness, vomiting, diarrhoea and constipation, preceded the onset of the dermatitis in previous studies¹, no such symptoms were observed in any of our patients.

In the majority of cases in previous reviews, the first manifestation of the disease was a "herald patch", its prevalence ranging from 12% to 94%¹. In our study 57 (67.1%) had herald patches and 10 (10.5%) had more than one. Multiple herald patches occur approximately 5.5% of the time¹. As in other studies the trunk was the commonest site of the herald patch, occurring in 40.3% of this series. The size of the herald patches in this study, agreed with previous studies where the size ranged between two to 10 cms in diameter².

The interval between the appearance of the herald patch, and the generalized eruption varies from seven to 14 days⁹. The average in this study was 5.8 days, with the shortest being one day and the longest 30 days. The appearance and the distribution of the rash in our patients conformed to the clinical patterns described earlier¹⁰, except that the typical "fir tree" distribution of the lesions on the trunk were seen in only 41.2% of the patients. The atypical distribution of the rash on the face, palms and the oral mucosa and the unilateral and localized lesions have been previously described^{11,12}. In addition to the oral lesions seen in our patients, erythematous plaques, annular lesions and aphthous like ulcerations have been described¹ as other oral manifestations.

Most of the atypical morphological variants previously described^{11,12}, were seen in our patients (Table 7). Papular variants have been found more in children and in Africans¹³. Papular lesions in addition to the other lesions were seen in 42 of our patients. Erythema multiforme like lesions previously described in a child¹⁴, was seen in one of our patients. Purpuric lesions, seen in two of our patients, have also been described earlier¹⁵. Large "gignatic" lesions and an exfoliative form of disease seen in our study have also been described previously¹. Oral lesions seen

in four (4.7%) of our patients were seen in 9% of 138 patients in a Nigerian study¹⁶.

Recurrent pityriasis rosea has been defined as a new outbreak of the disease in a previously affected individual after an interval of at least one year. The frequency of recurrences has been estimated in various studies to be between 0.9% and 2.8%⁴. This series had two (2.3%) recurrences. The duration of the rash and the period to reach the maximum is similar to previous studies¹⁰. The longest duration reported previously was 14 weeks¹. However one of our patients had the lesions lasting 16 weeks.

Conclusion

This study of 85 consecutive patients with pityriasis rosea from Sri Lanka, show a remarkably similar pattern to previously described clinical patterns. Upper respiratory tract infections occur commonly prior to the onset of the rash. The papular form of the disease seems to be common, as in the African studies. Atypical morphology and distribution occurs frequently in this study.

References

1. Parsons JM. Pityriasis rosea update; 1986. *J Am Acad Dermatol* 1986; **15**: 159-167.
2. Chuang TY, Ilstrup DM, Perry HO. Pityriasis rosea in Rochester, Minnesota, 1969 to 1978. *J Am Acad Dermatol*. 1982; **7**: 80-89.
3. Vollun DI. Pityriasis rosea in the African. *Trans St Johns Hosp Dermatol Soc*, 1973; **59**: 269-272.
4. Bjornberg A, Hellgren L. Pityriasis rosea. A statistical, clinical and laboratory investigation of 826 patients and matched healthy controls. *Acta Derm Venerol* (Stockh) 1962; **42** (suppl): 50-68.
5. Burch PRJ, Rowell NR. Pityriasis rosea. an autoaggressive disease? *Br J Dermatol* 1970; **82**: 549-560.
6. Hendricks AA, Lohr JA. Pityriasis rosea in infancy. *Arch Dermatol* 1979; **115**: 896-899.
7. Chuang TY, Perry HO, Ilstrup DM. Recent upper respiratory tract infection and pityriasis rosea; a case control study of 249 matched pairs. *Br J Dermatol* 1983; **108**: 587-592.
8. Nurse DS. *Aust H Dermatol* 1969; **10**: 38-41.
9. Weiss RL, Lane CW, Showman WA. Pityriasis rosea. *Arch Dermatol Syph*. 1927; **15**: 304-322.

10. Highest AS, Kurtz J. Pityriasis rosea. In Champion RH, Burton JL, Ebling FJG ed. *Rook Wilkinson, Ebling Textbook of Dermatology* Oxford Blackwell Scientific Publications 1992; 948-951.
11. Cairns RJ. Pityriasis rosea; some clinical variants. *Trans St John's Hosp Dermatol Soc* 1951; **30**: 43-50.
12. Imamura S, Ozako M, Oguchi M. Atypical pityriasis rosea. *Dermatologica* 1985; **171**: 474-477.
13. Marshall J. Pityriasis rosea; review of its clinical aspects and discussion. *S Afr Med J* 1956; **30**: 210-218.
14. Friedman SJ. Pityriasis rosea with erythema multiforme like lesions. *J Am Acad Dermatol* 1987; **17**: 135-136.
15. Rinaldi VG. Pityriasis rosea di Gibert purpurica. *Minerva Dermatol* 1954; **29**: 387-390.
16. Jacyk WK. Pityriasis rosea in Nigerians *Int J Dermatol* 1980; **19**: 397-399.