Clinicoepidemiological study of pityriasis rosea

Sir,

Pityriasis rosea (PR) is an eruptive disorder, which is known since the 18th century. There are recent indications of its infective etiology, but its clinicoepidemiologial features have not been studied well in this part of the world. Hence this study was done in S. S. Hospital, Varanasi, for a period of 15 months. The details such as cutaneous and constitutional symptoms of each patient were recorded. All the cases were investigated for blood hemoglobin (Hb), total and differential leukocyte counts (TLC, DLC), erythrocyte sedimentation rate (ESR), and venereal disease research laboratory (VDRL) test. Patients were examined for cutaneous changes at intervals of 15 days till remission, and an antihistamine was prescribed if itching was marked.

The total number of patients attending skin and VD, OPD during this period was 78,536, of which 42,028 were males; 29,929, females; and 6,579, children up to 12 years of age. The number of patients of PR was 200; thus the proportion of PR patients was 0.25%. Age of PR patients varied from 1.5 to 65 years, where mean age ± SD was 29.1 ± 20.1 years. The ages of maximum number of patients were between 13 and 36 years. Males were 133 (66.51%); and females, 67 (33.5%); including 28 children (17 males, 11 females). The male-female ratio of PR patients was 2:1, and that of OPD patients was 1.4:1. One patient presented during pregnancy. The number of patients from Uttar Pradesh was 187 (93.5%), including 117 patients from Varanasi. Thirteen patients were from the neighboring state of Bihar. There were 113 students, 32 housewives, 18 office goers, 17 businessmen, 8 farmers, 8 unemployed, and 4 were preschool children.

Cases were maximum during the 4 months from September to December; and minimum, from March to June. Itching was present in 162 patients. It was mild in 105, moderate in 53, and severe in 4 patients. Aggravation of itching was reported during night by 44 patients; on exposure to sunlight, by 17 patients; and after bath, by 8 patients.

History suggestive of upper respiratory tract infection (URTI) preceded the lesions in 35 patients, out of whom 26 had this within 1 month preceding the attack of PR; and 9, within 3 months preceding PR. Thirty-two patients had taken medicines before the appearance of the rash: 6, paracetamol; 3, ibuprofen; 3, cefadroxyl; 2, antihistamines; 2, roxithromycin. One case each took ciprofloxacin, tinidazole, doxycycline, oral corticosteroid, chloroquine, ofloxacin with an antihistamine, and dapsone with rifampicin and clofazimine for multibacillary leprosy. Eleven patients took more than one drug, the nature of which was not known.

Before the onset of the rash, 5 patients noted pain in abdomen; 4, headache; 3, fever; and 1, joint pains. An initial lesion was noted in 141 patients. The number of patients with herald patch/es was 1 in 112, 2 in 28, and 3 in 1. The lesions were reddish brown with slight peeling of the skin. The sites varied from chest in 38 patients; abdomen, 27; back, 27; forearms, 14; thighs, 4; arms, 12; neck, 6; legs, 2; and buttocks, 1. The lesions were round or oval in shape, and the size varied from 2 to 10 cm. A few patients did not notice any initial lesion; out of them, 1 patient each took paracetamol, roxithromycin, and rifampicin with dapsone. However, drug-induced eruptions were clinically ruled out in such patients. The interval between primary and secondary eruptions was less than 5 days in 61 patients; 6 to 10 days, in 64; and more than 10 days, in 16 patients.

Five patients gave history of eruptions similar to those of PR, once in the past. The interval was 10 months in 1 patient; 1 year, in 2; 1.5 years, in 1; and 2 years, in 1 patient. History of atopy was given by 6 patients, but history of PR-like eruptions in the family was not noted by any patient. Pallor was noticed in 5 patients; cervical lymphadenopathy, in 28; and epitrochlear single lymph node, in 1 case who was VDRL negative.

The distribution of lesions was bilateral and almost symmetrical with long axis along the cleavage lines. They were present on trunk and proximal part of limbs in 169 patients; inversus type, in 15; localized, in 9 — of which 3 were on neck, 2 on axillary fold with one arm, 2 on arm and forearm, 1 on thigh, and 1 on face. Three patients had generalized lesions; in 2 patients lesions were only on one side of the body; on groin and gluteal region in 1; and flexural sites in 1 patient.

The lesions of secondary eruptions varied in size from 0.5

to 4 cm. They were slightly erythematous to light brown, multiple, discrete, oval (88% of patients) or round (5%) plaques with fine and dry scales in center and collarette at the periphery in 93% of patients. The lesions were papular in 11 patients, vesicular in 2, and follicular and target type in 1 patient each.

Hematological examination showed normal hemoglobin level in all patients. Fifty-nine patients had raised ESR. TLC was within normal limits in all patients, but 32 patients had raised eosinophil count (upper limit of normal, 8%). In patients with markedly raised eosinophil count (even up to 15%), ova and cysts were not found in stool examination. VDRL test was non-reactive in all patients.

One hundred twenty-eight patients reported for follow-up till the lesions subsided; 28 patients reported irregularly. PR subsided within 16 to 30 days in 42 patients; within 31 to 45 days in 39; 46 to 60 days, in 35; and more than 60 days, in 12 patients. There was decrease in severity of symptoms and signs on subsequent visits in most of the patients; except in a few, in whom the number of lesions or pruritus increased for the initial few weeks. The lesions subsided without scar in all, but with hyperpigmentation in 58 and hypopigmentation in 43 patients.

The proportion of PR patients in this study was 0.25 per 100 skin and V.D. patients, which is lower than that reported by others.[1]

History of URTI was noted in 17.5% of patients, which has been considered to be the time of entry of infection in patients and which may not be noted sometimes or may be subclinical.[2] Recurrence was noted by 2.5% of patients, but family history was negative in all the patients; may be because PR does not disturb the daily routine of individuals, so it might not have been noticed in the relatives by the patients. Prodromal symptoms prior to the onset of PR were reported in 65% of patients. Herald patch was noted in 70.5%, followed by secondary rash. ESR was raised in many of them, but some patients also had eosinophilia. The course of the disease was self limiting. These features are suggestive of viral etiology of the disease.[3-6]

The distribution of lesions of secondary rash in PR is bilateral, almost symmetrical along the cleavage lines well arranged with long axis of the oval lesions longitudinally. In most of the patients, the lesions are present on the trunk or proximal part of limbs; in some, the distribution is girdle type, inversus, localized, unilateral, or even segmental. Whimster stated that when there is bilateral reaction on 2 symmetrical areas on opposite sides of the body or specific segment is involved unilaterally by a disease process, there is in most patients little alternative to suggesting nervous system being responsible for symmetry or segmentation.[7] Human herpes virus (HHV) like particles have been revealed in PR on electron microscopy.[8] HHV 6 and 7 DNA has also been found in peripheral blood leukocytes and plasma in patients with PR by polymerase chain reaction.[9] Extracts of scales or blister fluid could transfer PR with typical lesions at the site of inoculation after 10 to15 days followed by classical secondary rash.[10]

In conclusion, PR is a mild dermatosis occurring in winter mostly, in this part of the world, affecting males in the age group of 13 to 36 years and remitting within around 8 weeks.

Lata Sharma, K. Srivastava
Department of Dermatology and Venereology, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India

Address for correspondence: Dr. Lata Sharma, Department of Dermatology and Venereology, Institute of Medical Sciences, Banaras Hindu University, Varanasi - 221 005, India.
E-mail: lataims@rediffmail.com

REFERENCES

1. Bjornberg AA, Tegner E. Pityriasis rosea. In: Freedberg IM, Eisen AZ Wolff K, Auster KF, Goldsmith LA, Katz SI, editors. Fitzpatrick's dermatology in general medicine. New York: McGraw Hill; 2003. p. 445-50.
2. Truhan AP. Pityriasis rosea. Am Fam Physician 1984;29:193-6.
3. Chuang TY, Perry HO, Ilstrup DM, Kurland LT. Recent upper respiratory tract infection and pityriasis rosea: A case control study of 249 matched pairs. Br J Dermatol 1983;108:587-91.
4. Chuh AA, Lee A, Zawar V, Sciallis G, Kempf W. Pityriasis rosea: An update. Indian J Dermatol Venereol Leprol 2005;71:311-5.
5. Chuh AA, Zawar V, Lee A. Atypical presentation of pityriasis rosea: Case presentations. J Eur Acad Dermatol Venereol 2005;19:120.
6. Vag T, Sonkoly E, Karpati S, Kemeny B, Ongradi J. Avidity of antibodies to human herpes virus 7 suggests primary infection in young adults with pityriasis rosea. J Eur Acad Dermatol Venereol 2004;18:738-40.
7. Whimster W. Morbid anatomy and Skin Trans. St. John's Hospital Derm Soc 1968;54:11.
8. Drago F, Malaguti F, Ranieri E, Losi E, Ribora A. Human Herpes virus like particles in pityriasis rosea lesions: An electron microscopic study. J Cutan Pathol 2002;29:359-61.
9. Chuh AA, Chiu SS, Peiris JS. Human herpes virus 6 and 7 DNA

in peripheral blood leucocytes and plasma in patients with pityriasis rosea by polymerase chain reaction: A prospective case control study. Acta Dermatol Venerol 2001;81:289-90.
10. Ahmed MA. Pityriasis rosea in Sudan. Int J Dermatol 1986;25:184-5.