

ORIGINAL ARTICLE

Evaluation of clinical characteristics of adult-onset actinic prurigo

Sumit Gupta

Assistant Professor, Department of Dermatology, Santosh Medical College, Ghaziabad, Uttar Pradesh, India

ABSTRACT:

Background: Actinic prurigo is a rare, chronic, and hereditary skin condition that predominantly affects individuals of Native American descent but can also occur in other populations. The present study was conducted to evaluate clinical characteristics of adult-onset actinic prurigo. **Materials & Methods:** 72 patients with adult-onset actinic of both genders underwent blood tests, patch tests, and histopathology of skin biopsies. The responses to treatment in all patients were recorded. Phototesting was carried out in all patients. **Results:** Out of 72 patients, males were 30 and females were 42. Area affected was dorsum of hands in 14 patients, face in 16, ear in 9, neck in 20 and scalp in 13 cases. Duration of disease was <6 months in 24 and >6 months in 48 cases. Medical history showed asthma in 6, Bell's palsy in 2, diabetes mellitus in 18, hypertension in 25. Treatment given was sun protection in 34, topical corticosteroids in 51 and antihistamines in 12 patients. The difference was significant ($P < 0.05$). **Conclusion:** The most commonly area affected was dorsum of hands, face, ear, neck and scalp. Duration of disease was more than 6 months in most of cases. Treatment given was sun protection, topical corticosteroids and antihistamines.

Keywords: Actinic prurigo, corticosteroids, Phototesting

Corresponding author: Sumit Gupta, Assistant Professor, Department of Dermatology, Santosh Medical College, Ghaziabad, Uttar Pradesh, India

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INTRODUCTION

Actinic prurigo is a rare, chronic, and hereditary skin condition that predominantly affects individuals of Native American descent but can also occur in other populations. It is characterized by intensely itchy, inflamed skin lesions that appear on sun-exposed areas of the body.¹ There is a strong genetic predisposition, especially among individuals of Native American ancestry. It is often linked to the HLA-DR4 allele. Ultraviolet (UV) radiation from the sun is the primary trigger for actinic prurigo. Symptoms typically worsen in spring and summer when UV exposure is higher. The condition usually begins in childhood or adolescence but can also manifest in adulthood.²

Intense itching is the hallmark symptom. The skin lesions are often red, raised, and can be blistered or crusted. They primarily appear on sun-exposed areas such as the face, neck, arms, and hands. Cheilitis (inflammation of the lips) is common in actinic prurigo, leading to dry, cracked, and swollen lips. Some individuals may develop inflammation of the conjunctiva (the membrane covering the white part of the eyes), causing redness and irritation.³

Sun-exposed portions of the body include the neck, V-shaped areas of the chest, the dorsum of the hands, the

face (lips, nose, brows, and malar regions), and the extensors of the arms and forearms. It has been demonstrated that these patients react to UVA and UVB light, which are broad-spectrum radiation; yet, their minimal erythema dose (MED) to UVB and UVA is typically normal.⁴ There have been reports of adult-onset AP, which is defined as AP that manifests beyond the age of 21, and Asian individuals are more likely to have this variation. Adult-onset AP is typically not linked with cheilitis or conjunctivitis.⁵ The present study was conducted to evaluate clinical characteristics of adult-onset actinic prurigo.

MATERIALS & METHODS

The present study was conducted on 72 patients with adult-onset actinic of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. All underwent blood tests, patch tests, and histopathology of skin biopsies. The responses to treatment in all patients were recorded. Phototesting was carried out in all patients. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

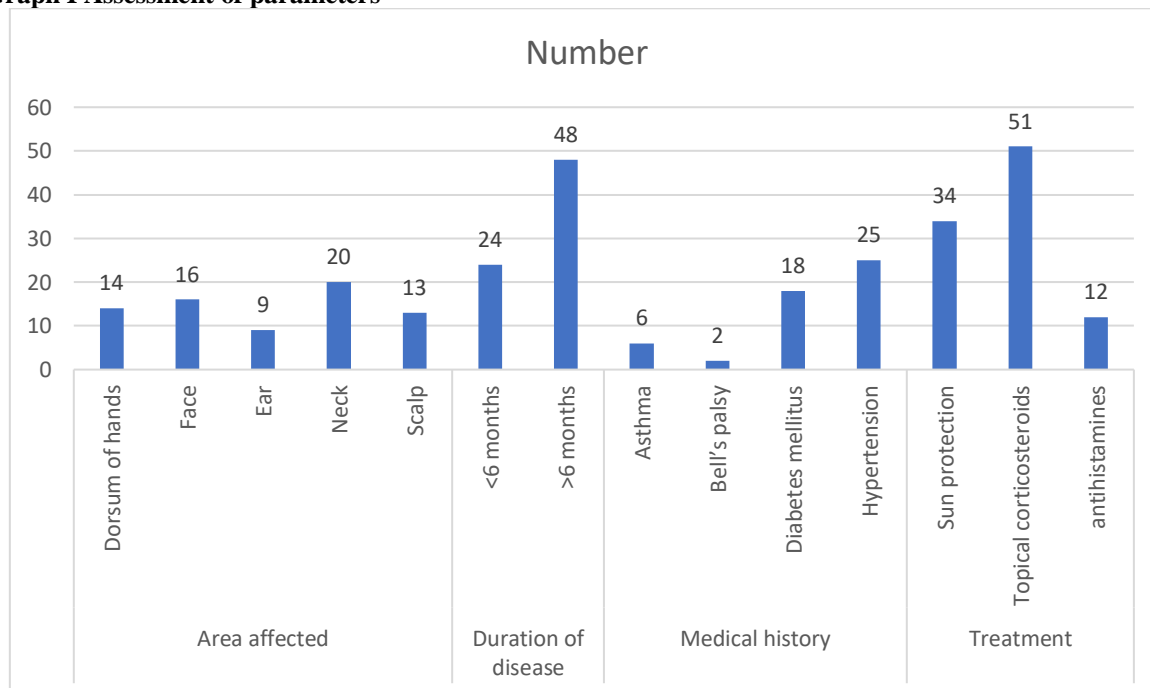
Total- 72		
Gender	Males	Females
Number	30	42

Table I shows that out of 72 patients, males were 30 and females were 42.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Area affected	Dorsum of hands	14	0.94
	Face	16	
	Ear	9	
	Neck	20	
	Scalp	13	
Duration of disease	<6 months	24	0.01
	>6 months	48	
Medical history	Asthma	6	0.05
	Bell's palsy	2	
	Diabetes mellitus	18	
	Hypertension	25	
Treatment	Sun protection	34	0.91
	Topical corticosteroids	51	
	antihistamines	12	

Table II shows area affected was dorsum of hands in 14 patients, face in 16, ear in 9, neck in 20 and scalp in 13 cases. Duration of disease was <6 months in 24 and >6 months in 48 cases. Medical history showed asthma in 6, Bell's palsy in 2, diabetes mellitus in 18, hypertension in 25. Treatment given was sun protection in 34, topical corticosteroids in 51 and antihistamines in 12 patients. The difference was significant ($P < 0.05$).

Graph I Assessment of parameters

DISCUSSION

Chronic, itchy skin illness known as actinic prurigo (AP) is brought on by an aberrant reaction to sunlight.⁶ Although AP can strike at any age, it typically starts before the age of ten and normally goes away in adolescence or the early stages of adulthood. AP eruptions are characterized by itchy nodules and papules that are often excoriated.⁷ There is frequently lichenification, crusting, and eczematization along with secondary infection.⁸ There may also occasionally be conjunctivitis and cheilitis, especially in patients who are Native Americans.⁹ The present study was conducted to evaluate clinical characteristics of adult-onset actinic prurigo.

We found that out of 72 patients, males were 30 and females were 42. Ker et al¹⁰ determined the clinical characteristics of AP in patients. A total of 11 patients were diagnosed with AP. The mean age at diagnosis was 52 years. There were 9 (82%) Chinese and 2 (18%) Malay patients. Nine (82%) were male and 2 (18%) were female. The most commonly affected areas were the face, forearms, and hands (72%). Phototesting showed reduced minimal erythema dose (MED) to ultraviolet A (UVA) in 5 (46%) patients, both UVA and ultraviolet B (UVB) in 4 (36%) patients and UVB in 1 (9%) patient. Seven (64%) patients reported partial improvement after treatment with a combination of topical corticosteroids and

sunscreens. Four (36%) patients received systemic therapy with partial response.

We observed that area affected was dorsum of hands in 14 patients, face in 16, ear in 9, neck in 20 and scalp in 13 cases. Duration of disease was <6 months in 24 and >6 months in 48 cases. Medical history showed asthma in 6, Bell's palsy in 2, diabetes mellitus in 18, hypertension in 25. Treatment given was sun protection in 34, topical corticosteroids in 51 and antihistamines in 12 patients. Akaraphanth R et al¹¹ found that there were 18 males and 12 females. The mean age of onset was 36.86 years. The duration of disease was from 1 month to 20 years. Forearms (27 patients) were the most frequently affected site. Other screening tests showed negative results. Five patients had abnormal MED to UVA and one patient had abnormal MED to UVA as well as UVB. Photo provocation tests showed positive responses to both UVA and UVB in 12 cases (40%), a positive response to UVA in 11 cases (37%), a positive response to UVB alone in four cases (13.3%) and a normal response in three patients (10%). None of the patients had a positive response to visible light. Skin biopsies were performed on nodular lesions in 23 cases. Histopathology from these 23 cases showed hyperkeratosis ortho- or parakeratosis and acanthosis in 20 of the 23 cases.

Lane et al¹² described the clinical features and prognosis of actinic prurigo. They presented a series of 93 Amerindian patients. The face was the most commonly involved area. A hereditary tendency, cheilitis, and pruritus were prominent features. One third of patients report some lesions, often minor, during the winter. The majority of patients phototested were sensitive to ultraviolet A light. They found the age of onset of actinic prurigo to be the most important feature in determining the type of eruption and the prognosis for the patient. In general, the younger ages of onset (up to 20 years of age) are associated with cheilitis and more acute eruptions and are more likely to improve over 5 years. Those who develop actinic prurigo as adults (21 years of age and older) tend to have a milder and more persistent dermatosis.

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that most commonly area affected was dorsum of hands, face, ear, neck and scalp. Duration of disease was more than 6 months in most of cases. Treatment given was sun protection, topical corticosteroids and antihistamines.

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