

Research Article

Clinico-morphological characteristics of Psoriasis from the patients of Gujrat

Dr. Rachna Lau^{1*}, Dr. Avinash Thakare², Dr. F.E. Bilimoria³, Dr. Ranjeeta Maherotra⁴

¹MBBS, DVD, MD Dermatology, Assistant Professor, Dept. of Dermatology, GMC ,Akola

²MBBS, MD, Assistant Professor, Dept. of Physiology, ESIC MC, Gulbarga

³MD ,DVD, Professor & HOD, Dept. of Dermatology, BJMC, Ahmedabad

⁴MBBS, MD, Assistant Professor, Dept. of Physiology, LNMC, Bhopal

***Corresponding author**

Dr. Rachna Lau

Email: rechanalau@gmail.com

Abstract: Psoriasis is common disease in India affecting almost all age groups with slight prevalence in middle aged population.. Our study aims at characterization of the presentation of Psoriasis from patients in Gujrat state of India. We considered age group, sex, various clinical and morphological types, association with nail changes, arthropathy associated with the disease in our study so that the disease problem is identified. We examined a total of 100 patients attending Dermatology OPD of BJ Medical College , Ahmadabad, Gujarat. Informed consent was taken from the patients participating in the study. Careful history and clinical examination as well as supplementary investigations were done to come to the diagnosis of Psoriasis. Study revealed Psoriasis is having more prevalence in middle age group (31-45years)with slight prevalence in male sex ,however higher incidence was noted in female sex of younger age group(16-30 years).Chronic plaque psoriasis was more common type in chronic form while guttate psoriasis was more common in acute form of the disease. Nail changes, oligoarticular type of arthritis were more common with male patients than in female sex. In most cases precipitating factor was winter season .Our study revealed varied presentation of Psoriasis as far as sex is concerned with more prevalence in Male sex and other associated changes.

Keywords: Clinico-morphologic, Psoriasis

INTRODUCTION

Psoriasis, one of the oldest skin disease out of all recorded, was first described in 35th to the 40th century AD by a scientist, Celsus [1]. Psoriasis represent a wide variety of morphology- clinical representation. Psoriasis is a chronic inflammatory disease of skin, mucosa and joints, with a genetic predisposition, affecting all ages, sexes and ethnic groups. It is characterised by sharply demarcated, dull red, scaly plaques localised to extensor aspects, trunk and scalp. As far as etiology is concerned, as it has wide range of factors like association with HLA13, HLA17, HLADR7 [2].

Psoriasis shows vast racial and ethnic variations highly prevalent in Norway, Scandinavia and western Europe, Kenya and Uganda while less Prevalent in Chinese, Americans and Africans [3]. In India incidence is more in females as compared to males. Worldwide Psoriasis affects 0.1 %- 6% of world's population

Provocating factors:

Trauma: Development of Psoriatic lesion at the site of scratch, cut, operative incision and drug eruption is called Koebner phenomenon.

Infection: Streptococcal throat infection provokes an attack of acute guttate psoriasis. The M proteins and pyogenic exotoxins can act as superantigens that cause T cell stimulation.³ Hepatitis C virus infection: may be an etiological infection [4,5]

Endocrinal factors: It has been observed that the incidence is most during puberty and menopause. Pregnancy shows improvement as well as deterioration. There are relapses in puerperium. Generalised pustular psoriasis may be provoked by pregnancy and high dose estrogen therapy. In pregnancy, psoriasis improves due to down regulation of immune system by pregnancy related hormones.

Climate: Most of the patients show exaggeration during winter and remission in summer.

Metabolic: Hypocalcemia can precipitate psoriasis.

Drugs: Commonest precipitating drugs are lithium, β – adrenergic blockers, antimalarials, withdrawal of systemic corticosteroids. Drugs that exacerbate pre-existing psoriasis are clonidine, potassium iodide, amiodarone, digoxin, trazodone, gemfibrozil, penicillin, terfenadine and indomethacin.

Psychogenic factors: Stress can induce attacks of psoriasis in a predisposed person.

Alcohol and smoking: Initially believed to be triggering factors, they have now been proven on the contrary, to have beneficial effects.

AIDS: In a patient of AIDS, psoriasis gets manifested in severe form as helper T cell is the target cell which is also the cell involved in the process of psoriatic lesion.

In present study we have tried to examine clinicomorphology of psoriasis. Study of various clinical types and subtypes of psoriasis in both male and female patients of various age group. We have also tried to examine other associated changes in disease like Auspitz sign, zone of woinoff, nail changes, skin colour changes, depigmentation and hypertrichosis.

MATERIAL AND METHODS

Study was carried out in department of Dermatology, Venereology and Leprology from May 2000 to April 2002 . Total 100 patients were chosen for study purpose. Informed consent of these patient were taken after explaining the objectives of study. They were given freedom to leave the study if there is unwillingness. Study design was approved from Institutional Ethics Committee(IEC).

Inclusion criteria for patients:

Patients belonging to the age group of 5 to 70 years were selected.

All different clinical variants of psoriasis were included.

Care full history and clinical examination was done to arrive at diagnosis of Psoriasis. Patient were examined thoroughly for morphological study of lesion, extent of lesion. Examined for Auspitz sign, zone of worn off , nail changes and skin colour changes. Systemic examination was also done to rule out associated disease. X ray chest, RFT, LFT, urine

examination was also done. Data from patient was recorded in proforma.

RESULT

Table 1 shows that in the present study, out of 100 patients, 61% were males and 39% were females. Males outnumbered the females by a ratio of 2:1. Majority of patients were between ages of 31 – 45 years and above 45 years i.e.44% males and 30.76% females. The youngest patient was 6 years old and oldest was 66 years old with a mean age of 36 years.

Table 2 shows that psoriasis is a chronic disorder. Maximum number of patients with varied morphological types are having disease duration between 1 – 5 and above. Guttate psoriasis is present within the duration of 6 months to 1 year and below 6 months.

Majority of patients belong to the chronic plaque variety (74%) followed by guttate (13%) type. Males outnumber the females especially in chronic plaque variant(77.04%) and in erythrodermic form(9.83%). Acute guttate psoriasis was seen in a higher incidence in females i.e. (20.51%). (Table 2)

Out of all different nail changes , pitting was the commonest one seen(40.74%), with an incidence of (39.8%)in males and (42.37%) in females. (Table 4) All nail changes were seen more in males than females. Nail changes that showed a relation with arthropathy were subungual hyperkeratosis and pitting (20%).

As observed in Table 5 Winter season was the commonest precipitating factor(35.89%) followed by upper respiratory tract infection(25.64%). Throat swab was taken in guttate cases. Results showed streptococcus pyogenes in 6 cases(46%). 2 patients showed exacerbation after intake of aspirin and chloroquine.

The table 6 shows that oligoarticular type was the commonest (37.03%), followed by classic type (25.92%), Rheumatoid type(22.22%), Sacroiliac type(7.4%) and finally mutilating type(7.4%). Males are predominantly affected(74.07%) with greater incidence of oligoarticular (50%) and classic type(25%). In females, all types showed equal incidence(28.57%). Overall incidence of arthropathy was 27%.

Table- 1: Age And Sex Incidence Of Psoriasis .

| Age group(years) | Males | Females |
|------------------|----------|------------|
| 0-15 | 0 | 3(7.69%) |
| 16-30 | 7(11.5%) | 14(35.89%) |
| 31-45 | 27(44%) | 12(30.76%) |
| >45 | 27(44%) | 10(25.64%) |
| TOTAL | 61 | 39 |

Table- 2: Disease Duration Vs. Clinical Type

| Duration | Guttate | Palmoplan tar | Chronic plaque | Pustular | Erythrodermic |
|-----------------|---------|---------------|----------------|----------|---------------|
| <6 month | 8 | 0 | 1 | 2 | 0 |
| 6 month- 1 year | 5 | 0 | 6 | 0 | 0 |
| 1-5 year | 0 | 2 | 39 | 0 | 1 |
| >5 year | 0 | 2 | 28 | 0 | 6 |

Table -3: Clinical Type Vs. Sex

| Type | Male | Female | Total |
|----------------|------------|------------|-------|
| Guttate | 5(8.19%) | 8(20.51%) | 13 |
| Palmoplantar | 2(3.27%) | 2(5.12%) | 4 |
| Chronic plaque | 47(77.04%) | 27(69.25%) | 74 |
| Pustular | 1(1.63%) | 1(2.56%) | 2 |
| Erythrodermic | 6(9.83%) | 1(2.56%) | 7 |
| TOTAL | 61 | 39 | 100 |

Table- 4: Nail Changes Vs. Sex

| Nail changes | Male | Female | Total |
|--------------------------|------------|------------|------------|
| Pitting | 41(39.8%) | 25(42.37%) | 66(40.74%) |
| Colour change | 32(31.06%) | 17(28.81%) | 49(30.24%) |
| Subungual hyperkeratosis | 30(29.12%) | 17(28.81%) | 47(29.01%) |
| TOTAL | 103 | 59 | 162 |

Table- 5: Incidence Of Precipitating Factors

| Precipitating factors | Incidence |
|-----------------------|------------|
| Winter season | 28(35.89%) |
| Summer season | 10(12.82%) |
| Infection | 20(25.64%) |
| Trauma | 10(12.82%) |
| Drugs | 06(07.69%) |
| Mental stress | 04(05.12%) |

Table- 6: Incidence Of Arthropathy

| Type | Male | Female | Total |
|--------------------|---------|-----------|------------|
| Classic | 5(25%) | 2(28.57%) | 7(25.92%) |
| Oligoarticular | 10(50%) | - | 10(37.03%) |
| Rheumatoid | 4(20%) | 2(28.57%) | 6(22.22%) |
| Sacroiliac | - | 2(28.57%) | 2(7.4%) |
| Arthritis mutilans | 1(5%) | 1(14.28%) | 2(7.4%) |
| TOTAL | 20 | 7 | 27 |

DISCUSSION

In our study age wise incidence was higher in age group of 31-45 year & above 45 years in males while in same age group females it was lower. Females having high incidence in somewhat young age group (16-30 years). Males were having high incidence (61%) as compared to females (39%). Youngest patient was 6 years old and oldest was 66 years with mean age in study group was 36 years. Majority of patients had chronic plaque psoriasis as most common type of disease in our study duration between 1-5 years, indicating psoriasis to be a chronic disorder. While guttate psoriasis was common in duration less than 6

months and erythrodermic type common in duration more than 5 years.

Most common type of psoriasis was chronic plaque variety in males (77.04%) and in females(69.25%). While least common type is pustular psoriasis in males (1.63%) and in females (2.56%). Erythrodermic psoriasis was commoner in males (9.83%) as compare to females (2.56%). Pitting was the commonest nail changes (40.74%) out of all different nail changes like pitting, colour changes and subungual hyperkeratosis. All nail changes were seen more in males as compare to females.

Winter season was the commonest precipitating factor (35.89%) followed by upper respiratory tract infection (25.64%) Trauma ,summer season,drug intake ,mental stress are other precipitating factors noted in our study.

Oligoarticular type was the commonest (37.03%), followed by classic type (25.92%), Rheumatoid type (22.22%), Sacroiliac type(7.4%) and finally mutilating type(7.4%). Males are predominantly affected(74.07%) with greater incidence of oligoarticular (50%) and classic type(25%). In females, all types showed equal incidence(28.57%). Overall incidence of arthropathy was 27%.

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