



## A STUDY ON CO MORBIDITIES ASSOCIATED WITH PSORIASIS

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## ABSTRACT

Psoriasis is a chronic, disfiguring inflammatory and proliferative condition of the skin. The present study focused on the comorbidities associated with psoriasis patients and also the medications used for the treatment of the same. It was a Non experimental (Observational) prospective and cross sectional study and done in the department of dermatology, Amrita Institute of Medical Sciences, (a tertiary care referral and teaching hospital, in Kochi). A total of 100 cases of psoriasis were identified in this study from a total of 6340 patients. Out of 100 patients 45 patients were found to have comorbidities. Diabetes mellitus and hyperlipidemia were the most commonly associated diseases seen in psoriasis patients. In this study Diabetes mellitus and hyperlipidemia were found to be in 8% of patients. Oral hypoglycaemic agents and antihyperensives were the most commonly prescribed medications for the treatment of associated diseases. The present study revealed that psoriasis patients appear to be at high risk for diabetes mellitus and cardiovascular diseases. So this study provides data to advice health care providers to pay more attention towards the psoriatic patients.

**KEYWORDS:** comorbidities, psoriasis, comedications

## INTRODUCTION

Psoriasis is a chronic, disfiguring inflammatory and proliferative condition of the skin in which genetic and environmental influences have a critical role. It affects approximately 2% of population. The most characteristic lesion consist of red, scaly, sharply demarcated, indurated plaques, present over extensor surfaces and scalp. The cause of psoriasis is not known, but it is believed to have a genetic component<sup>1</sup>. Epidemiological studies revealed that a distinct group of disease is quite frequently associated with psoriasis. The chronic inflammation in psoriasis has an unfavorable effect on cardiovascular risk profile. The classic cardiovascular risk factors like smoking and obesity have an increased prevalence among patients with psoriasis is indirectly also worsen the cardiovascular risk profile by stimulating the psoriasis activity. Psoriasis patients appear to be at high risk for diabetic mellitus and cardiovascular

disease<sup>2</sup>. A well known comorbidity in psoriasis is psoriatic arthritis<sup>3</sup>. In addition to this, a number of other diseases like arthritis, colitis, inflammatory bowel diseases were also associated with psoriasis.

## MATERIALS AND METHODS

This was a non-experimental (observational), prospective, cross sectional study and was carried out on patients with psoriasis seen at the dermatology outpatient and inpatient department of AIMS from January 2010 to May 2010. This study was approved by the research ethics committee and informed consent was signed by the patients who participated in the study. A standardized data collection form was prepared and necessary data were obtained from patients and their care givers by interviewing method and examination of the patient medical record. All the patients diagnosed to have psoriasis were included in this study and those who were not willing to co-operate were excluded

TABLE I: FREQUENCY OF ASSOCIATED DISEASES IN PSORIATIC PATIENTS STUDIED

DISEASE	NUMBER OF PATIENTS	PERCENTAGE OF PATIENTS
Type 2 Diabetes Mellitus	8	8
Hyperlipidemia	8	8
Diabetes+ Hypertension	7	7
Psoriatic Arthritis	7	7
Hypertension	5	5
Asthma	4	4
Coronary Artery Disease	2	2
Myocardial Infraction	1	1
Adequate Immunodeficiency Syndrome	1	1
Hypothyroidism	1	1
Psychosis	1	1
Others/without other comorbidities	55	55

TABLE II: FREQUENCY OF CO-MEDICATIONS PRESCRIBED FOR PSORIASIS PATIENTS FOR TREATMENT OF ASSOCIATED DISEASES

CO-MEDICATIONS	NUMBER OF PATIENTS	PERCENTAGE OF PATIENTS
Oral hypoglycaemic agents	12	12
Antihypertensives	12	12
Lipid Lowering Agents	8	8
Bronchodilators	4	4
Insulin	3	3
Antianginal	3	3
Glucocorticoid	2	2
Thyroid Hormone	1	1
Antipsychotic	1	1
Opioids	1	1
COX <sub>2</sub> Inhibitors	1	1

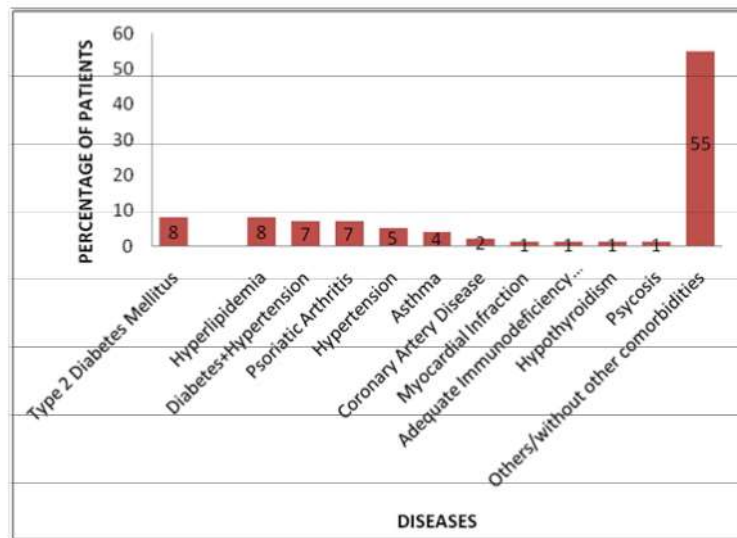


Figure I: Frequency of associated diseases in psoriatic patients

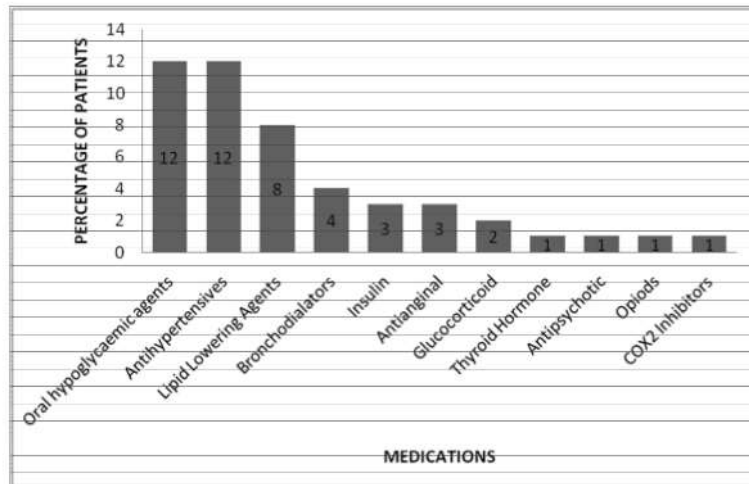


Figure II: Frequency of co-medications prescribed for psoriasis patients

**RESULTS**

**Frequency of associated diseases in psoriatic patients studied**

In this study, diabetes was seen in 8% of patients, hyperlipidemia in 8% and diabetes and hypertension in 7% of patients. Psoriatic arthritis was found in (7%) patients. 5% of patient had hypertension and 4% patients had asthma. CAD was found in (2%) of patients. (1%) each had myocardial infraction, AIDS, hypothyroidism and psychosis. Majority of the patient 55% had no co-morbidities.

**Frequency of co-medications prescribed for psoriasis patients for treatment of associated diseases**

The present study found that Oral hypoglycaemic agents (OHA) and antihypertensives were taken by (12%) of patients, followed by lipid lowering agents (8%). (4%) patients were prescribed bronchodilators. Insulin and antianginal drugs were prescribed for (3%) each of the patients. Glucocorticoids were taken by (2%) of patients. (1%) each of the patients were prescribed thyroid hormones, antipsychotic, opiod and COX<sub>2</sub> inhibitors.

**DISCUSSION**

The present study revealed that diabetes was seen in (8%), hyperlipidemia in (8%), diabetes combined with hypertension in (7%), psoriatic arthritis in (7%), hypertension

in (5%), coronary artery disease in (2%), myocardial infraction in (1%), AIDS in (1%), hypothyroidism in (1%) and psychosis in (1%) of the patients.

A previous study reported that patients with psoriasis more often have obesity, diabetes mellitus, heart failure and hypertension than controlled patients without psoriasis<sup>4</sup>.

Juvenile psoriasis was also reported to be associated with increased rates of hyperlipidemia, obesity, hypertension, diabetes mellitus, ischemic heart disease and Crohn's disease. Also, hyperlipidemia, diabetes as well as hypertension were seen two times more often in psoriasis patients than controlled pediatric population<sup>5</sup>.

A study among 936 Italian patients hospitalized for severe psoriasis found prevalence of psoriatic arthritis in 7.7% of patients<sup>6</sup>. Another study reported that the prevalence of psoriatic arthritis as 5%<sup>7</sup>. A recent study reported that among 1511 patients with plaque type psoriasis 20.6% had psoriatic arthritis<sup>8</sup>.

In a study of German patient, Henseler and colleagues noted an increased prevalence of hypertension and heart failure in patients hospitalized for psoriasis<sup>4</sup>.

A study of Wakkee et al reported that psoriasis is associated with an unfavourable cardiovascular risk profile<sup>9</sup>.

A cohort study of patients enrolled in Harvard community health plan showed that psoriasis occurs at a higher rate in

HIV infected patients than in patients without a known diagnosis of HIV.<sup>10</sup>

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