

Original Article

A study of comorbid conditions in psoriasis

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Abstract *Objective* To study the association of psoriasis with various comorbid conditions.

Patients and methods Hundred consecutive patients with psoriasis were included in the study. Complete physical examination was done. Blood pressure monitoring was done in all patients. Blood sugar (fasting), fasting lipid profile and thyroid function test were done in all patients.

Results A total of 52% of patients had some comorbidity in our study. Hypertension was present in 13% while diabetes mellitus was seen in 8% of patients. Both diabetes and hypertension was seen in 12% of patients. 7% of patients were obese. Thyroid disorder and ischemic heart disease were seen in 4% of the patients each. Lipid abnormalities were seen in 4% of patients.

Conclusion All patients with psoriasis should be monitored for associated comorbid conditions. For effective management of psoriasis and related comorbidities, an integrated approach targeting both cutaneous and systemic inflammation may be beneficial.

Key words

Psoriasis, co morbid conditions.

Introduction

Psoriasis is newly defined as a systemic disease. Common co-morbidities associated with psoriasis include diabetes, hypertension, and metabolic syndromes. Psoriasis can have a significant impact on a patient's quality of life and is associated with loss of productivity, depression, and an increased prevalence of malignancy.¹ Pro-inflammatory cytokines such as tumour necrosis factor-alpha (TNF- α), and other factors like pro-inflammatory T- helper type I cytokines that are overproduced in patients with psoriasis likely contributes to the increased risk for development of metabolic syndrome.² In terms of the other diseases associated with psoriasis, Crohn's disease is another condition that is not common but its prevalence is certainly increased in patients with psoriasis.³ Depression or anxiety is another common problem in patients with

psoriasis as is genitourinary disease. 20 % of hospitalised patients with psoriasis have some genitourinary complaints. Patients should adopt a healthy lifestyle so as not to contribute any more to risk factors. Treating psoriasis and the associated co-morbid conditions aggressively from the beginning will definitely improve the quality of life of the patient.

Patients and methods

The study was conducted in the department of Skin and STD, Sree Balaji Medical College from April, 2009 to October, 2009. Hundred consecutive patients with psoriasis were included in the study. All types of psoriasis patients were included. Complete physical examination was done. Blood pressure monitoring was done in all patients. Blood sugar (fasting), fasting lipid profile and thyroid function tests were done in all patients. Patients with recent blood reports were not subjected to further investigation.

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Results

Total of 100 patients were included in the study. Forty five patients (45%) had palmo-plantar type followed by chronic plaque type psoriasis in 44% of patients. Most common age group was in the range of 41-50 yrs (26%) followed by 51-60 yrs (21%). 60 % of patients had the disease for a period ranging from 1-5 yrs. Diabetes mellitus was seen in 8% of patients. Hypertension was present in 13%. Both diabetes and hypertension was seen in 12% of patients. 7% of patients were obese. Thyroid disorder and ischemic heart disease were seen in 4% of the patients. Lipid abnormalities were seen in 4% of patients. A total of 52% of patients had some comorbidity in our study (**Table 1**).

Discussion

Psoriasis is associated with numerous comorbidities that have a major impact on severely affected patients. Comorbid conditions linked with psoriasis are associated with increasing rates of morbidity and mortality.⁴ Besides psoriatic arthritis, other diseases such as metabolic syndrome and cardiovascular diseases are becoming of major importance. The relationship between psoriasis and comorbidities is likely linked to the underlying chronic inflammatory nature of psoriasis.⁵ TNF- α plays a central role in the pathogenesis of psoriasis. It plays a critical role in activation of innate and acquired immune responses leading to chronic inflammation, tissue damage and keratinocyte proliferation. TNF- α levels are markedly increased in skin lesions, synovium and serum of patients with psoriasis and these correlate with the severity of the disease. Decreased levels are associated with clinical resolution.²

In a survey of psoriasis patients hospitalized for treatment, Henseler and Christophers⁶

Table 1 Comorbid conditions in 100 psoriatic patients.

Comorbid condition	N (%)
Hypertension	13 (13)
Diabetes mellitus	8 (8)
Diabetes mellitus + hypertension	12 (12)
Obesity	7 (7)
Thyroid disorders	4 (4)
Ischemic heart disease	4 (4)
Hypercholesterolemia	4 (4)
Total	52 (52)

investigated a list of concurrent disorders, both cutaneous and non-cutaneous and a significant proportion of these patients had obesity, cardiac disease, hypertension and/or diabetes. Mallbris *et al.*⁷ compared rates of cardiovascular mortality in patients who were admitted one or more times for psoriasis treatment with an outpatient cohort and found that the mortality ratio was 50% higher in inpatients than in the outpatient cohort.

In a study by Sommer *et al.*⁸ psoriasis patients are likely to be at risk for the development of signs of obesity, hypertension and diabetes, as well as dyslipidaemia and chronic heart disease.

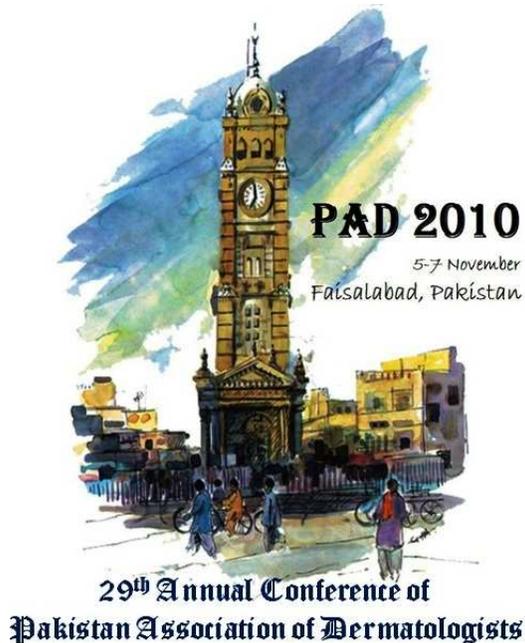
Although further data are needed it now seems mandatory to closely monitor psoriasis patients with a focus on risk factors, including body weight, hypertension and hyperlipidaemia, in addition to chronic heart disease. It also appears necessary to adopt treatment regimens that not only provide early clearing of the involved skin but also provide persistently low inflammatory activity. For effective management of psoriasis and related co-morbidities, an integrated approach targeting both cutaneous and systemic inflammation may be beneficial, and strategies to improve overall management of the patient should be encouraged to reduce the disease burden.⁹

In the future we will have genetic markers^{10,11} that will tell us who is at risk of developing

which co-morbidities and we will be able to intervene earlier and much more aggressively to prevent premature death.

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