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Assessment of cases of Psoriasis: A clinical study

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Abstract
Background: Psoriasis is a multi‐ factorial disease. The present study was conducted to assess cases of Psoriasis.
Materials & Methods: The present study was conducted in the department of Dermatology. It comprised of 65 cases of Psoriasis of both genders. Smoking history was obtained. Psoriasis Area and Severity Index (PASI) was recorded in all patients.
Results: Out of 65 patients, males were 35 and females were 30. The mean PASI score in smokers was 12.4, in non- smokers was 8.2, in alcoholics was 10.8 and in non- alcoholics was 5.4. The difference was significant ($P < 0.05$).
Conclusion: Psoriasis is a skin disease. In our study, there was male predominance and PASI score was highest among smokers and alcoholics.

Keywords: Psoriasis, PASI, Skin

Introduction
Psoriasis is best viewed as a multi‐ factorial disease where there is an interplay between genetic and environmental factors [1]. Importance of lifestyle factors such as smoking and alcohol use in its pathogenesis are being increasingly recognized. Several studies have shown an association between smoking and psoriasis. Alcohol consumption also has been reported to increase the risk of developing psoriasis. However, there have been only a few published studies on the association of smoking and alcoholism with increased severity of psoriasis [2].
Psoriasis is a chronic inflammatory disease, with a reported prevalence of 1% to 3% in Europe and the US [3]. It may present at any age, but has a bimodal distribution of first presentation at between 15 to 20 and 55 to 60 years of age. Younger age at onset is associated with more severe disease and a family history affecting more family members. In general, approximately 36% of patients have a family history of psoriasis, andmultiple genetic susceptibility loci have been identified [4]
Psoriasis is a common skin disorder affecting the population worldwide. It is a T-cell mediated autoimmune disorder leading to keratinocyte hyperproliferation [5]. Psoriasis has genetic predisposition that is further aggravated by certain stimulating factors. In spite of significant advances in understanding the pathogenesis of psoriasis, the exact etiology of the disease remains unknown. The clinical manifestations of this disease include various forms that affect different parts of the body. Treatment options vary according to the mode of application or severity of the disease [6]. The present study was conducted to assess cases of Psoriasis.

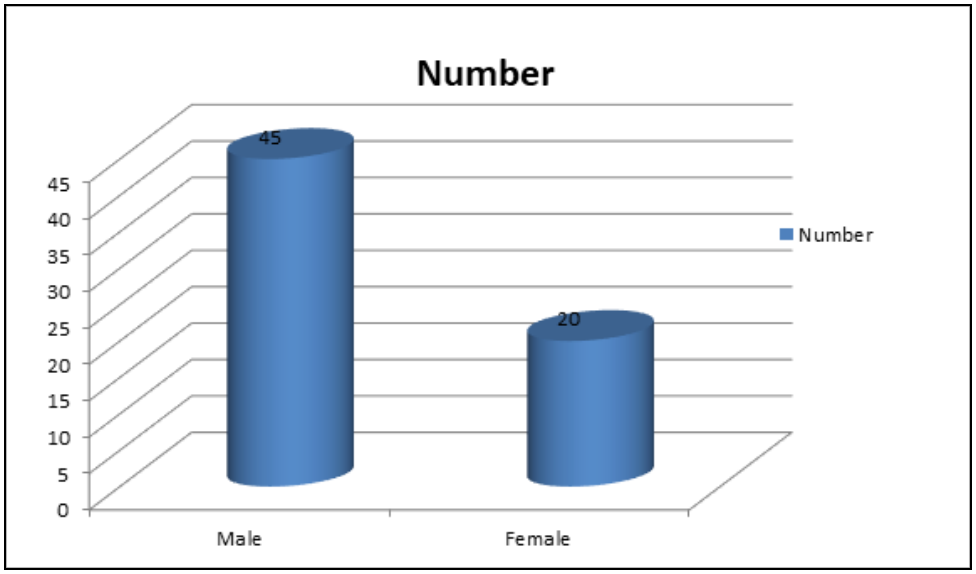
Materials & Methods
The present study was conducted in the department of Dermatology. It comprised of 65 cases of Psoriasis of both genders. The study was approved from institutional ethical committee. All participants were informed regarding the study and written consent was obtained.
Information such as name, age, gender etc. was recorded. Smoking history was obtained. Psoriasis Area and Severity Index (PASI) was recorded in all patients. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

Results

Table I: Distribution of patients

	Total-65	
Gender	**Males**	**Females**
Number	45	20

Table I, graph I shows that out of 65 patients, males were 35 and females were 30.

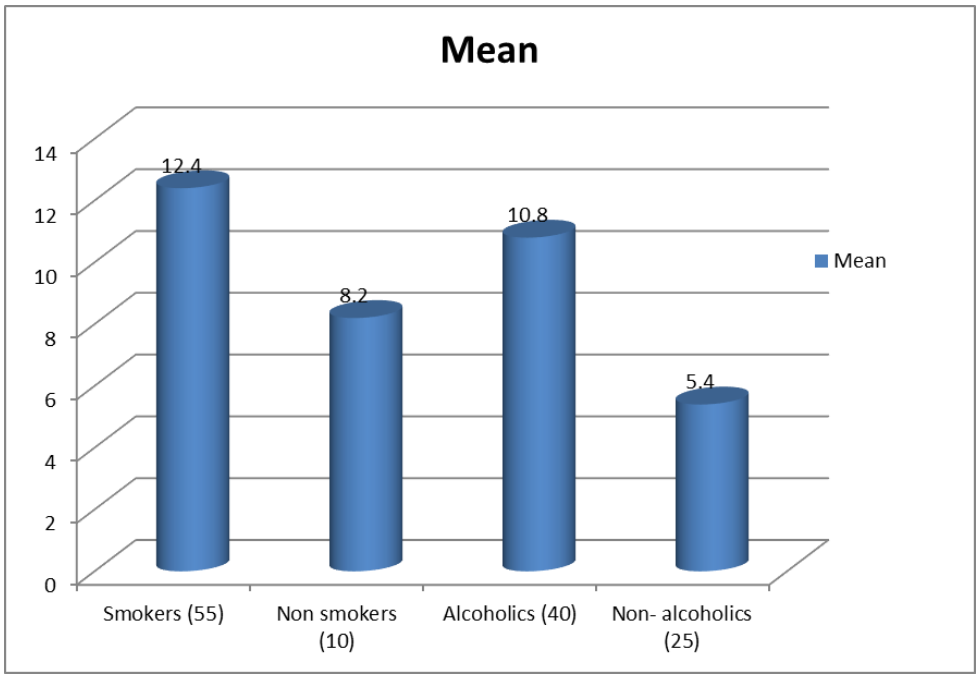


Graph I: Distribution of patients

Table II: PASI index in all patients

Parameters	Mean	P value
Smokers (55)	12.4	0.01
Non smokers (10)	8.2	
Alcoholics (40)	10.8	0.02
Non- alcoholics (25)	5.4	

Table II, graph I shows that mean PASI score in smokers was 12.4, in non- smokers was 8.2, in alcoholics was 10.8 and in non- alcoholics was 5.4. The difference was significant ($P < 0.05$).



Graph I: PASI index in all patients

Discussion

Psoriasis is also associated with chronic obstructive pulmonary disease, nonalcoholic fatty liver disease, and coronary artery disease. Persons with psoriasis may also have a significantly decreased quality of life and psychological burden including anxiety, depression, and suicidal thoughts and behavior [7].

Psoriasis is a chronic autoimmune disease with multiple leukocytes and cytokines interacting to produce the disease process. The inflammatory cascade of psoriasis begins when antigens in the skin activate dendritic cells and neutrophils, which release cytokines including tumor necrosis factor 1 (TNF-1), interleukin 23 (IL-23), and IL-12. These cytokines participate in positive feedback loops by activating leukocytes, which then release more cytokines, resulting in continuous inflammation [8] The present study was conducted to assess cases of Psoriasis.

In this study, out of 65 patients, males were 35 and females were 30. We found that mean PASI score in smokers was 12.4, in non- smokers was 8.2, in alcoholics was 10.8 and in non- alcoholics was 5.4. The difference was significant ($P < 0.05$).

Asokan *et al*. [9] found that of a total of 338 patients, 148 were smokers and 173 used to consume alcohol. Mean PASI score of smokers was more than that of non‑smokers. Those with severe psoriasis were more likely to be smokers. There was a significant correlation between PASI scores and Fagerström score. Mean PASI scores of persons who used to consume alcohol and those who did not were comparable. There was no association between severity of psoriasis and alcohol consumption. There was no correlation between PASI scores and AUDIT scores.

The nails and joints should be examined for any changes consistent with psoriasis, and a family history should be taken to further elucidate the diagnosis. Diagnosis can be further supported by the Auspitz sign or Koebner phenomenon. The Auspitz sign occurs because an excess of small surface capillaries results in multiple bleeding points when the silver-gray scale is lifted off. The Koebner phenomenon consists of the appearance of psoriatic lesions on previously normal skin because of prior trauma; clinical psoriasis lesions appear after 7 days or more. 18 This phenomenamay cause psoriatic lesions to appear around wound sites, under dressings, and around ostomy sites [10]

Earlier treatments have included application of emollients or keratolytic agents to hydrate the skin or shed off the skin. But later treatments have been modified to treat the underlying T-cell proliferation [11]. Hence, topical treatments like coal tar, vitamin D, retinoids, topical calcineurin inhibitors for treating mild psoriasis, systemic treatments including methotrexate, cyclosporine, acitretin, hydroxyurea, as well as light therapy for severe psoriasis have become more prominent. Current treatment modalities are associated with the risk of serious side effects from prolonged treatment. Combinations of these therapies have provided effective and rapid modalities to suppress the disease and reduce the side effects of treatment. In addition, newer carrier systems for conventional drugs are being developed to improve the effectiveness of treatment and reduce the side effects. Development of biologics and gene therapy has revolutionized the treatment of this skin disease [12] although an array of therapies to suppress the psoriatic condition exists, none are curative.

Conclusion

Psoriasis is a skin disease. In our study, there was male predominance and PASI score was highest among smokers and alcoholics.

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