



## A study of clinical and sociodemographic profile of patients with Vitiligo

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### Abstract

**Background:** Vitiligo is a progressive, common skin lesion which is characterized by milky white macules devoid of identifiable melanocytes. Among the Indian subcontinent, highest incidence is reported in Indian population.

**Aims and Objective:** To study clinical and sociodemographic parameters associated with vitiligo.

**Materials and Methods:** One hundred and twenty eight vitiligo patients were studied at Sharma Hospital, Gwalior from January 2018 to June 2018. A detailed history along with sociodemographic profile of each patient was recorded.

**Results:** Incidence of vitiligo in present study was 2.4%. Female (64.8%) outnumbered the males. Maximum patients were in the second decade of their life (37.5%). Most of the patients were unmarried (56.25%). Half of the patients had family history. Trauma was the most common precipitating factor (5.5%). Progressive vitiligo was reported in 60.93% patients. Vitiligo vulgaris was the most common morphological pattern (56.28%).

**Conclusion:** Vitiligo is common in young females. A wide variety of clinical variations were noted in present study.

**Keywords:** sociodemographic profile, pigmentary disorder, Vitiligo vulgaris

### Introduction

Vitiligo is one of the most common pigmentary disorders of the skin. The world wide incidence of Vitiligo is around one percent [1].

The provoking factor for vitiligo reported by several authors is ignorance, taboos, lack of scientific appraisal and confusion of vitiligo with leprosy. Being a pigmentary disorder, vitiligo has become a disease of social embarrassment [2]. The life expectancy is not affected with the presence of vitiligo [3].

Patients with vitiligo are also linked with a stigma, as the parents of female patients are worried about their marriage [4]. Families of such patients believe that patients of vitiligo if get married, chances of getting the vitiligo to the child are more [5]. Several dermatological reports have shown an incidence of 3 to 4% in Indian population but the incidence of vitiligo can be as high as 8% [6]. The present study was done to evaluate clinical and sociodemographic parameters linked to the vitiligo.

### Materials and methods

Present prospective study was performed on 128 patients with vitiligo at Sharma Hospital, Gwalior from January 2018 to June 2018.

All the new patients having vitiligo who were attending the out patients department were included whereas patients with depigmentation caused by chemicals, burns, or another disease were excluded from the present study.

In present study diagnosis of vitiligo was done clinically. A detailed history including the duration of the disease; marital

status; precipitating factors; presence of leukotrichia, Koebner's phenomenon, positive family history, and any other cutaneous or systemic illness were recorded.

Sociodemographic profile of each patient was also recorded. Routine blood and urine investigation, blood sugar, thyroid function tests (TFT) were also done for each patients. Lesions were grouped as focal vitiligo (lesions confined to one or a few patches localized in a particular area), segmental vitiligo (lesions distributed in a segmental/dermatomal pattern), acrofacial vitiligo (lesions noted over both face and acral regions), vitiligo vulgaris (lesions affecting many parts of the body) and mucosal vitiligo (lesions confined only to mucous membranes) [7].

All the data analysis was performed using IBM SPSS ver. 20 software. Quantitative data was expressed as mean  $\pm$  standard deviation (SD) whereas categorical data was expressed as percentage. Cross tabulation and frequency distribution was used to prepare the table and Microsoft excel 2010 was used to prepare the required graph. Level of significance was assessed at 5% level.

### Results

In present study out of 5333 total OPD patients seen, a total 128 patients were of vitiligo (2.4%). The incidence of vitiligo in present study was 2.4%. Out of 128 patients, female [83 (64.8%)] outnumbered the males.

Maximum patients were in the second decade of life [48 (37.5%)] and 72 (56.25%) were unmarried. In present study 64 (50%) patients had family history of vitiligo. Among the

precipitating factor, trauma [7 (5.5%)] was the most common followed by emotional upset [6 (4.7%)] and physical pressure [4 (3.1%)]. Progressive vitiligo was reported in 78 (60.93%) patients.

Among the morphological pattern, most common was Vitiligo vulgaris [72 (56.28%)] followed by focal vitiligo [21 (16.4%)], acrofacial vitiligo [2 (1.6%)], mucosal vitiligo [16 (12.5%)], segmental vitiligo [3 (2.3%)] and universal vitiligo [14 (10.9%)].

In present study leucotrichia was reported in 15 (11.71%) patients, Koebner's phenomenon was reported in 11 (8.6%) patients. Alopecia areata [2 (1.56%)], chronic urticaria [2 (1.56%)], and premature canities [3 (2.34%)] were the most common associated skin diseases in present study.

### Discussion

In Indian population, the prevalence of vitiligo is high which range from 0.46% to 8.8%. This variation may be explained by the fact that people live in different geographic regions with different environmental conditions contribute to this wide variation in the prevalence among Indian population [5].

Female outnumbered the males in present study which is in agreement to study done by Handa and Kaur, Koranne *et al.*, and Sarin *et al.* [7-9]. Several reports have shown that both males and female are equally affected by the vitiligo but in present study females were affected more. It may be due to the social stigma and marital issue which restrict the women to take the early interventions [10, 11].

In most of the patients in present study, the age of onset of vitiligo was second decade of life which is consistent with the many studies done in Indian and west population. This revealed that vitiligo starts at younger age in Indian subjects. Contrary to that study done by Howtitz *et al.* [12] reported that age of onset of vitiligo was 40-50 years.

Family history of vitiligo was reported in half of the included patients. Vitiligo is reported to have polygenic or autosomal dominant inheritance pattern with incomplete penetrance and variable expression [13-15]. Previous reports have quantified the familial occurrence which range from 6.25% to 30% [16]. Family history of vitiligo has been considered as the poor prognostic factor.

In present study maximum patients had progressive vitiligo at the time of presentation. In a similar study, Dave *et al* reported progressive vitiligo in 76% of the patients which is slightly higher as per the reports of present study (60.93%) [17].

Among the most common morphological pattern observed in present study vitiligo vulgaris was the most common type. Prevalence of clinical type of vitiligo vulgaris varies in different studies. Other than the vitiligo vulgaris, focal, mucosal, universal, segmental, and acrofacial vitiligo were the other most common morphological forms which were observed in present study. Contrary to present study findings Koranne *et al.* [8] and Sarin *et al.* [9] reported generalized vitiligo as the most common morphological form. Hence present study suggests that along with the high incidence of vitiligo among the Indian population, it is a widespread disease.

Maximum patients were from the urban area, which may be due to higher environmental pollutants in urban area. A study from China by Lu Tao has not found any significant difference in incidence among the rural and urban population. Study done by Slominski *et al.*, however reported several environmental factors including stress, extreme exposure to pesticides, sunlight, etc to be responsible in the etiology of vitiligo [18].

The cross sectional nature of the present study was the main limitation; hence present study findings cannot be applied to whole population. Small sample size was another limitation; a large randomized clinical trial is needed to strengthen the present study findings.

### Conclusion

As per the present study finding vitiligo is a disease which is more common in young females who are having marriageable age. A wide variety of clinical variations was noted in present study, but no significant systemic illnesses were recorded in our patients.

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