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CLINICO EPIDEMIOLOGICAL PROFILE OF VITILIGO PATIENTS FROM HILLY TERRIAN OF SOUTHERN RANGE OF HIMACHAL PRADESH

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ABSTRACT

Vitiligo is an acquired, progressive, idiopathic pigmentary skin disorder of unknown etiology which is characterized by well circumscribed depigmented white macules and patches of variable sizes. The extent and distribution of vitiligo often changes with unpredictable course which in turn causes cosmetic and psychological impact on the affected individuals. **Aims:** To study the clinico-epidemiological profile of vitiligo patients. **Subjects and methods:** A prospective, observational study was conducted over a period of one year by recording the clinico epidemiological parameters of vitiligo patients having nonsegmental and non acral vitiligo affecting more than 2% of body surface in the dermatology outpatient department at IGMC Shimla. The clinical and demographic data were collected using a pre structured data collection form. **Results:** The mean age of the patients was 28.5 years and the 62.5% patients were males and 37.5% were females. The young patients were affected more with 7.5% of the patient had family history of vitiligo. The majority 82.2% of the patients were not suffering from any underlying associated disorder. The disease was progressive in 80% of patients. **Conclusions:** vitiligo is common in the younger age groups and the associated disorders are less. The epidemiological behavior of vitiligo remains the same irrespective of different geographical regions.

KEYWORDS: Vitiligo, epidemiological profile, non segmental, non acral.

INTRODUCTION

Vitiligo is an acquired, idiopathic depigmented disorder of skin and hairs characterized by well circumscribed, asymptomatic milky white macules and patches affecting 0.1% to 2% of population worldwide.[1] The highest incidence is being reported from India and Mexico.[2] The approximate prevalence in India is 3% to 4% seen in dermatology outpatients of various hospitals.[3] Its prevalence appears to be equal between men and women.[4] The disease results in low self esteem, poor body images, difficulties in sexual relations and cosmetically and psychologically devastating. The pigmentary disfigurement is more significant in dark skinned individuals with major impact on the quality of life.[5] The definitive cure remains elusive despite the continuous research towards the elucidation of the genetic and immunological aspects of vitiligo.

Vitiligo is classified clinically into localized (focal, unilateral, mucosal), generalized (vulgaris, acrofacial, mixed) and universal vitiligo. The pathogenesis of vitiligo is not fully understood. The proposed theories are autoimmune,[6] neurogenic,[7] self destruct,[8] genetic factors,[9] growth factor defects,[10] biochemical defects[11] and the recent one is transepidermal malanocytorrhagy.[12] The onset of vitiligo is insidious and asymptomatic. The initial lesion may be a depigmented macules varying in size, shape, number and location with unpredictable course, but is often progressive in more than 80% of patients.[13] The presence of a positive family history, mucosal involvement, the isomorphic Koebner's phenomenon and nonsegmental vitiligo is associated with progressive disease. The positive family history can be seen in 20% to 30% of cases[14] with polygenic or autosomal dominant gene inheritance with variable penetrance. The vitiligo appears in conjunction with autoimmune diseases like thyroid disorder, alopecia areata, systemic lupus erythematosus, rheumatoid arthritis, diabetes mellitus, addisons diseases, psoriasis and pernicious anemia. The most common autoimmune disorder is hypothyroidism.

MATERIALS AND METHODS

The prospective study was done over a period of one year in the Outpatient Department of Dermatology, Venereology & Leprosy at Indira Gandhi Medical College and Hospital Shimla of vitiligo patients having nonsegmental and non acral vitiligo affecting more than

2% of body surface. A detailed history and physical examination was performed in all patients and history of onset of disease, total duration, site, family history of vitiligo, leucotrichia, any associated skin disorder and the body surface calculated by rule of nine were documented in the pre structured form. Complete haemogram with Erythrocyte Sedimentation rate, Liver Function test, Renal Function Test and Thyroid Function Test was done in every patient. An informed written consent was taken from the patients.

RESULTS

The forty patients of vitiligo were included in the study. The age of the patients was between 12-60 years, the mean age of the patients was 28.5 years, and the 25 (62.5%) patients were males and 15 (37.5%) were females. The maximum 13 (32.5%) were in the age group 21-30 years and minimum one patient was in the age group of 51-60 years (Table 1). The 7.5% of the patient had family history of vitiligo. The majority (82.2%) of the patients were not suffering from any underlying associated disorder, where as 5% had alopecia areata and 2.5% had hypothyroidism. The 77.5% vitiligo cases had disease for 10 years and 5% of patients were having the disease more than 20 years. Median duration of the disease was 4 years, with a minimum duration of 1 year and a maximum duration of 22 years. The disease was progressive in 80% of patients (Table 2).

Table 1: Age Distribution of vitiligo patients.

Sr. No.	Age (years)	No of patients	% age
1	12-20	9	22.5
2	21-30	13	32.5
3	31-40	11	27.5
4	41-50	6	15
5	51-60	1	2.5

Table 2 Clinical profile of vitiligo patients

Parameters	Numbers
Sex	
Male	25
Female	15
Disease duration (Years)	
<1	3
1-10	31
11-20	4
>20	2
Family history	3
Progressive disease	32
Kobernization	6
Leuchotrichia	18
Body surface area (% involvement)	
2-5	14
5-10	16
11-15	2
>15	8
Associated disease	3
Alopecia areta	2
Hypothyroidism	1

DISCUSSION

Our study observed a male predominance (62.5%) among the vitiligo patients which is almost similar to the study conducted by Jarallah et al,[15] but in contrary to the study done by Somorin et al,[16] Fatani et al[17] reported a higher occurrence in female patients. The difference may be due to small sample size in present study. The mean age of distribution (28.5%) observed showed young population is affected more which is in accordance with other studies reporting a mean age ranging from 24.5 to 34 years like Alzolibani et al,[18] Somorin et al,[16] Jarallah et al,[15] Fatani et al,[17] Al Robaee et al,[19] AlGhamdi et al,[20] although some of the reports indicated children and adolescents as more affected Jarallah et al,[15] Fatani et al.[17] The positive family history of vitiligo was 7.5% in present study while other studies conducted by Alzolibani et al,[18] Somorin et al,[16] Jarallah et al,[15] Fatani et al,[17] Alissa et al[21] reported a comparatively higher number of patients with family history in the affected individuals.

Similar to our study findings, the alopecia areata and hypothyroidism was also reported as underlying associated diseases among the vitiligo patients in studies by Fatani et al.,[17] Alissa et al.[21]

The median duration of the disease among the vitiligo patients was 4 years in the present study, which is relatively lower than the mean durations, 6.89 and 7.9 years, reported from Alzolibani et al,[18] and Alissa et al,[21] respectively.

CONCLUSION

The pigmentary disfigurement in vitiligo is more significant in dark skin individuals which usually occurs in the most productive life span which in turn leads to low self esteem, psychological stress and poor quality of life. The epidemiological behavior of vitiligo remains the same irrespective of different geographical regions and results obtained in present study were almost similar to those reported in the literature although the sample size was less as we have considered only non segmental and non acral vitiligo vulgaris patients with more than 2% of body involvement. So studies with larger sample size are required from the hilly regions to fully establish the relevance of clinico epidemiological factors.

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