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Clinico Demographical Profile and Psychological Impact of Vitiligo in a Tertiary Care Centre

Medical Science

KEYWORDS :Vitiligo, sociodemography, thyroid disorder, psychological problem

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ABSTRACT

Vitiligo is a common pigmentary disorder of skin & hair and constitutes a major psychological health problem in Tamilnadu. We mainly focused on the clinical and sociodemographical features of Vitiligo in Tirunelveli. We included 50 patients attending vitiligo clinic in Department of DERMATO – VENERO – LEPROLOGY in Tirunelveli Medical College Hospital(TVMCH), Tirunelveli, over the period of 2 months from August to September 2015. In this study, the prevalence rate was highest (42%) among 21 to 40 years age group. Among these, female patients were 56% while male recorded 44% and housewives were the highest percentage (36%) presented with vitiligo by occupation. 32% patients were associated with positive family history. The most common type of vitiligo is vitiligo vulgaris (46%). Research on the association of vitiligo with thyroid disorder is of great interest. Eighty percent patients had negative impact from the society, considering vitiligo as an infectious disease.

INTRODUCTION

Vitiligo is an acquired, primary, progressive, pigmentary disorder of the skin and hair characterized by well circumscribed milky white macules, devoid of identifiable melanocytes. The worldwide incidence is 1% (Wolff et al, 2007)[1]. Vitiligo is multifactorial and polygenic (Alkahateeb et al, 2003; Deneshpazhooh et al, 2006)[2]. The precise pathology remains elusive but seems to be dependent on the interaction of genetic, immunological and neurological factors (Whitton et al, 2008)[3]. Vitiligo has been observed in monozygotic twins. The age of onset, extent and course may be similar or dissimilar, Vitiligo affecting only one twin has been reported (Sharquie et al, 1984)[4]. Vitiligo is an important skin disease having major impact on quality of life of patients, many of whom feel distressed and stigmatized by their condition. The chronic nature of disease, long term treatment, lack of uniform effective therapy and unpredictable course of disease is usually very demoralizing for patients suffering from vitiligo. It is important to recognize and deal with psychological component of this disease to improve their quality of life and to obtain a better treatment response.

METHODOLOGY :

This sociodemographic study was done to determine the effects and extent of distribution of vitiligo among people in Tirunelveli district. The study was carried out among 50 patients who were having clinically depigmented lesions suggestive of vitiligo attending vitiligo clinic in Department of DERMATO – VENERO – LEPROLOGY in Tirunelveli Medical College Hospital (**TVMCH**).The period of study was 2 months from August to September 2015. The purpose of this study was explained to each participant and after having received his or her written consent in local langu age (Tamil). A questionnaire was developed to obtain relevant information of vitiligo patients. Patients were then requested to complete the tamil version of the Dermatology Life Quality Index (DLQI), which includes 10 questions and is designed for use in adults. It is self-explanatory and can be simply handed to the patient who is asked to fill without the need for detailed explanation. The scoring of each question is as follows: very much, 3; a lot, 2; a little, 1; not at all, 0; not relevant, 0; question unanswered, 0. The DLQI is calculated by summing the score on each question, resulting in a maximum of 30 and a minimum of 0. Higher score implies greater impairment of DLQI. The DLQI can also be expressed as a percentage of the maximum possible score of 30. DLQI scores are interpreted as follows: 0-1, no effect at all on quality of life [QOL]; 2-5, small impact on patient's QoL; 6-10, moderate impact on patient's QoL; 11-20, large impact on patient's QoL; 21-30, extremely large impact on patient's QoL.

Inclusion criteria :

All suggestive vitiligo patients were included regardless of age, sex, race, religion, social status and occupation.

Exclusion criteria :

1. Those with depigmentation caused by chemicals, burns or other diseases.
2. Those who do not belong to the study area.

RESULTS :

The 50 patients who were attending vitiligo clinic in TVMCH during the period from were grouped according to their age, sex, occupation, morphological type, and their psychological impact due to vitiligo. In this study regarding the age, the highest incidence (42%) was noted among 21 to 40 years of age group The demographical characteristic showed that housewives were the highest percentage (36%) suffering with vitiligo. . This studied shown that both sexes are likely to be affected equally but the higher incidence were recorded in female patients. The female patients were 56%, whereas the male patients were recorded 44%. Family history was the most important index for the measurement of the incidence of the Vitiligo patients. In our study we found that 32% patients were with positive family history and the remaining 68% of the patients were with negative history. Only 16% patients had itching and remaining 84% patients were asymptomatic. According to the morphological pattern the most common type of vitiligo is Vitiligo Vulgaris (46%) followed by Acrofacial (22%), Focal (18%), Segmental (10%),and Mucosal vitiligo(2%). These results are shown in the **Table 1.** 12% of patients were associated with Diabetes mellitus followed by Thyroid disorder 10%.

Demographic structures of living style and social problem of patients showed that the maximum patients had living status of middle class (42%) and 12% patients living status was lower class. Rest of the 4% patients living style was upper class and 30% patients was lower middle class. Regarding the distribution of skin lesions in the body 8% had lesions over covered area, 16% over exposed area and 76% of patients had lesions both on the covered and exposed area of the body. **Figure 1** shows distribution of participant according to region. Majority of cases 78% were from rural area.

In this study, social problem was the key question.In or-

der to evaluate the impact on QoL, the Tamil version of DLQI was applied. The mean DLQI was 24 ("extremely large impact"). The impact on QoL was significantly higher for women (mean DLQI 16.8) than for men (mean DLQI 13.2) . The most affected QoL domains were symptoms and psychological stress, daily activities, and treatment. There were statistically significant differences were noted between sexes in personal relationships, and treatment domains. 80% patients reported marital relationship is the main problem in vitiligo. 12% patients experienced very painful and pathetic situation due to social stigma. Only 8%of patients enjoyed equal rights in the society.

DISCUSSION :

In our study, we observed female preponderence , and this was in accordance with the study of Kovacs, 1998; Al-Mutairi & Sharma, 2006; Shajil et al, 2006; Martis et al, 2002 and Nunes & Esser, 2011. This may be attributed to the fact that parents are probably more concerned when confronted with a daughter instead of a son with vitiligo and therefore more likely to seek medical attention.(Jaishankar, 1992).In our study more common age group for disease onset is 21-40 years in accordance with Kashem et al, 1995. Contrary to this, Howtiz et al showed age of onset of vitiligo between 40-60 years.

A positive family was reported in 32% cases in our study. Hann et al, 1997 reported 13% family history; Handa & Kaur, 1999 reported 11.5% while Al Mutairi & Sharma, 2006 reported 18.9%. This is attributed to the role of genetic factors in the pathogenesis of vitiligo. Vitligo vulgaris (46%) is the most common subtype followed by acrofacial (22%), focal (18%) and segmental(10%)vitiligo in our study. Similarly Kovacs, 1998; Handa & Kaur, 2003 & Hann et al, 1997 also reported vulgaris is the most common subtype. In our study 12% of patients were associated with Diabetes Mellitus and 10% with Thyroid disorder. Gopal et al, 2007 & Arycan et al, 2008 reported 12% & 4.4% thyroid disease respectively, Huggins et al, 2006 reported 1-7% diabetes mellitus, Reghu et al, 2011 & Handa & Dogra, 2003 reported 6.3% & 11.5% leukotrichosis respectively. Clinically apparent deafness or any other ocular abnormality was not observed in any of our patients . Majority of our patients were from rural areas thus social and environmental factors may acts as triggering factor in these cases. Slominski et al, 1989 reported several environmental factors such as stress; extreme exposure to sunlight or pesticides may play a role in the etiology of vitiligo.

CONCLUSION

Clino-epidemiologic study of vitiligo in Tirunelveli district shows that vitiligovulgaris is the commonest subtype with female preponderance. Research on the presence of autoimmune disease; particularly Diabetes Mellitus and Thyroid disorder is of great interest. We suggest that patients with positive thyroid antibodies should be followed up for the possible development of clinical thyroid dysfunction. This study also gives awareness among people in Tirunelveli that Vitiligo is not a contagious disease. This study also depicts that counselling can help the vitiligo patients to improve their body image, self esteem and quality of life which indirectly have positive effect on the course of the disease. However furthermore studies are important to recognize and deal with psychological components of this disease to improve their quality of life and to obtain a better treatment response.

Table 1 : Distribution of participant patients by morphological types of Vitiligo.

Types of vitiligo	No. of Patient								Total Percentage (%)
	Male				Female				
	Below 20	21 to 40	Above 40	Total	Below 20	21 to 40	Above 40	Total	
Vulgaris	2	5	3	10	2	6	5	13	46
Acrofacial	1	3	1	5	2	4	-	6	22
Focal	1	1	2	4	3	-	2	5	18
Segmental	-	-	2	2	-	-	1	1	10
Mucosal	1	-	-	1	1	2	-	3	8
Universal	-	-	-	-	-	-	-	-	-

Figure 1: Distribution of participant patients according to region.

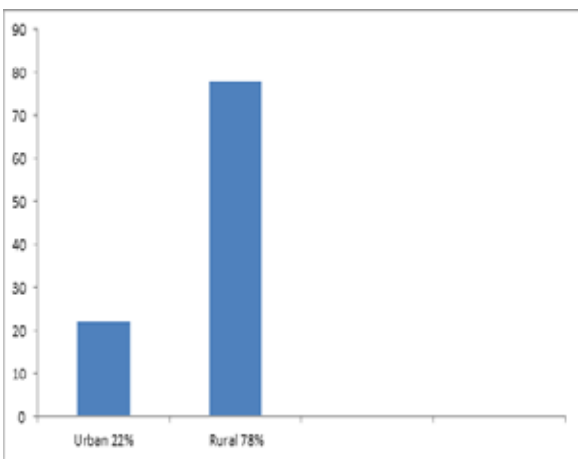

Figure 2: Vitiligo Vulgaris

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