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Assessment of cases of Vitiligo reported to department: A clinical study

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Abstract

Background: Vitiligo is known to occur with many autoimmune diseases. The present study was conducted to assess cases of Vitiligo in study group.

Materials & Methods: The present study was conducted on 112 cases of vitiligo of both genders. The extent of body surface area involvement was measured.

Results: Out of 112 participants, males were 52 and females were 60. The site of involvement was upper limb in 14, lower limb in 8, lips in 4, scalp, face & neck I 52, trunk in 23 and eyelid in 11. The difference was significant ($P < 0.05$). Most common triggering factors are identified by patients (40), physical trauma (48), surgery (3), psychological stress (12), pregnancy (5) and medical illness (4). The difference was significant ($P < 0.05$). Segmental pattern was seen in 14, non-segmental in 68, mixed in 20, vitiligo universalis in 5, genital involvement in 3 and mucosal involvement in 2.

Conclusion: Vitiligo is a common skin disease. Most cases were in females and Scalp, face, neck were the mostly affected.

Keywords: Face, Scalp, Vitiligo

Introduction

Vitiligo is known to occur with many autoimmune diseases, and there are many reports of its association with Type 1 diabetes mellitus unlike its association with Type 2 diabetes mellitus. Few studies show the association of vitiligo with Type 2 diabetes. Vitiligo is an acquired, noncontagious disorder, in which progressive, patchy loss of pigmentation of skin and often overlying hair, and mucous membranes, results from the loss of melanocytes from the involved areas ^[1].

The exact etiology of vitiligo is poorly understood and is often considered as a multifactorial disease with a complex pathogenesis encompassing several postulations implicating autoimmune, cytotoxic, biochemical, oxidant-antioxidant, viral, and neural mechanisms for destruction of the melanocyte function in genetically predisposed. The presence of autoimmune diseases like autoimmune thyroiditis, Grave's disease, Addison's disease, diabetes mellitus, alopecia areata is predominant factors ^[2].

Autoimmune mechanisms are thought to be responsible in the pathogenesis of vitiligo (especially in generalised or focal nondermatomal vitiligo). This is supported by an increased incidence of antibodies found in people with vitiligo ^[3]. Furthermore, vitiligo is often associated with autoimmune diseases, such as thyroid diseases, pernicious anaemia, and diabetes mellitus. Another indication that vitiligo may be due to an autoimmune mechanism is that melanocyte antibodies have been found in people with vitiligo, and their incidence correlates with disease activity ^[4]. Involvement of cellular immunity has been considered because T lymphocytes and macrophages in perilesional skin have also been frequently reported. Regarding segmental vitiligo, the neural hypothesis suggests that it is due to an accumulation of a neurochemical substance which decreases melanin production ^[5].

Some dermatological outpatient records show the incidence of vitiligo to be 3% to 4% in India although an incidence as high as 8.8% has also been reported. In the Indian states of Gujarat and Rajasthan, the prevalence of vitiligo is very high being described by some as of epidemic proportions ^[6]. The present study was conducted to assess cases of Vitiligo in study group.

Materials and methods

The present study was conducted in the department of Dermatology. It comprised of 112

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cases of vitiligo 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. In all patients, presence of other cutaneous and systemic disorders was recorded. The extent of body surface area involvement was measured by Wallace rule of nine and various clinical patterns were classified according to Vitiligo Global Issues Consensus Conference 2011–12 report. Results thus obtained were subjected to statistical

analysis. P value less than 0.05 was considered significant.

Results

Table I: Distribution of participants

	Total- 112	
Gender	Males	Females
Number	52	60

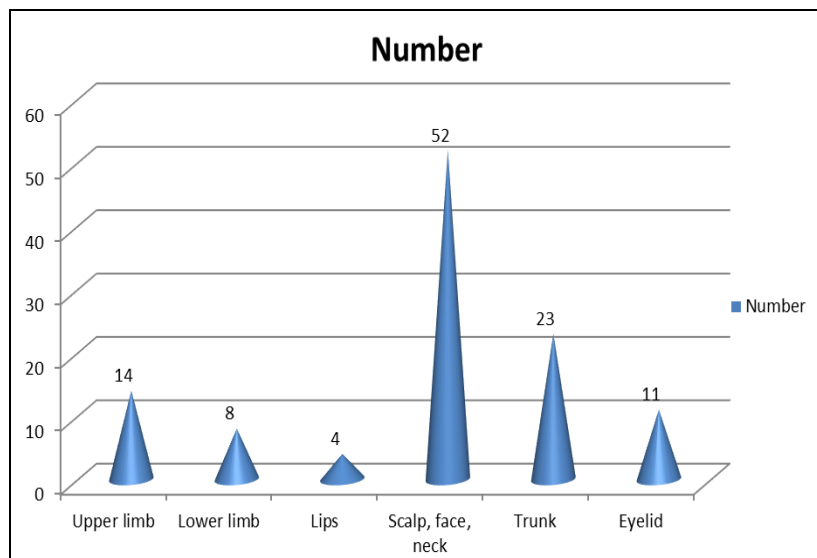
Table I shows that out of 112 participants, males were 52 and females were 60.

Table II: Site of occurrence

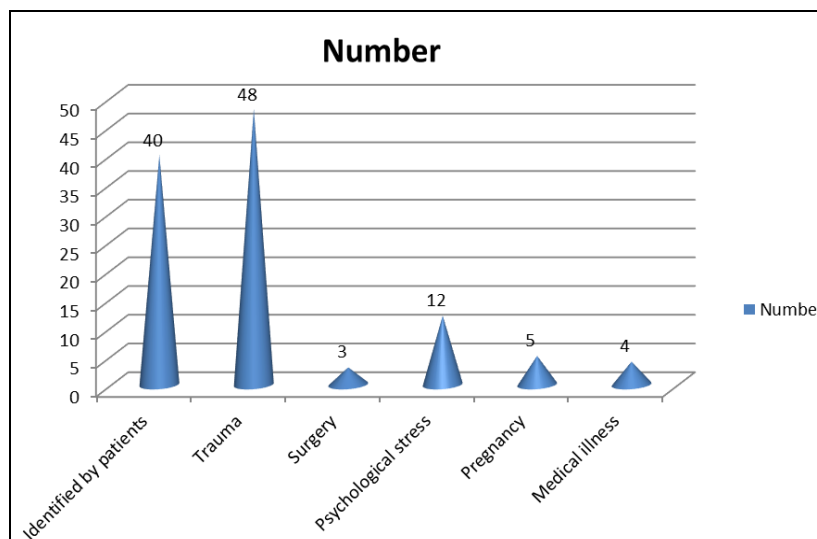
Site	Number	P value
Upper limb	14	0.01
Lower limb	8	
Lips	4	
Scalp, face, neck	52	
Trunk	23	
Eyelid	11	

Table II, graph I shows that site of involvement was upper limb in 14, lower limb in 8, lips in 4, scalp, face & neck I

52, trunk in 23 and eyelid in 11. The difference was significant ($P < 0.05$).



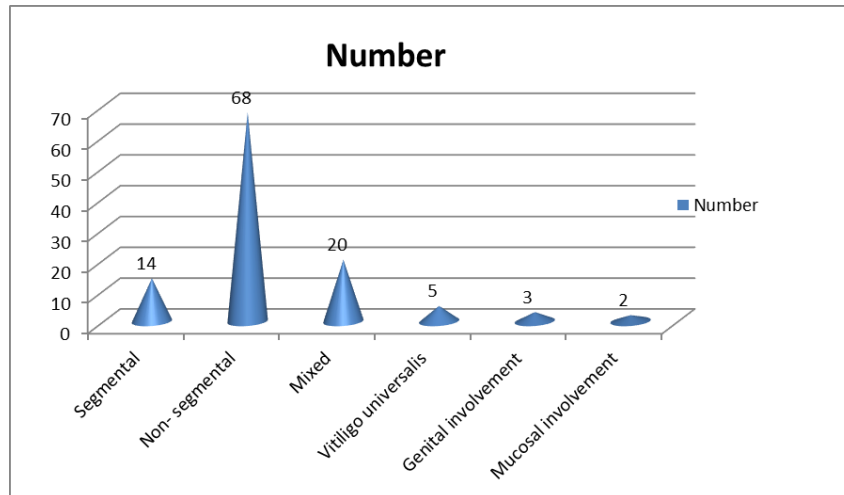
Graph I: Site of occurrence



Graph II: Triggering factors

Graph II shows that most common triggering factors are identified by patients (40), physical trauma (48), surgery (3),

psychological stress (12), pregnancy (5) and medical illness (4). The difference was significant ($P < 0.05$).



Graph III: Clinical pattern

Graph III shows that segmental pattern was seen in 14, non-segmental in 68, mixed in 20, vitiligo universalis in 5, genital involvement in 3 and mucosal involvement in 2.

Discussion

Factors such as poor nutrition, emotional stress, autoimmunity, trauma, drugs, infections, sepsis, and exposure to the sun, chemicals, and toxins are often considered to trigger it. Clinically, the usual age of onset is before 20 years of age in nearly half of the cases. It affects both genders equally at any age but most studies report a peak incidence between 18 and 21 years (mean 24 years) [7]. Vitiligo is not life threatening and is mostly asymptomatic, although it does increase the risk of sunburn of the affected areas. The association of vitiligo and skin cancer remains an area of controversy. The occurrence of skin cancer in long-lasting vitiligo is rare, although studies have demonstrated increased PUVA associated skin cancers.⁸ The effects of vitiligo can be both cosmetically and psychologically devastating, resulting in low self-esteem and poor body image. The anxieties regarding the disease occur against a background of a lack of understanding of the etiology and unpredictability of the course [9]. The present study was conducted to assess cases of Vitiligo in study group.

In this study, out of 112 participants, males were 52 and females were 60. The site of involvement was upper limb in 14, lower limb in 8, lips in 4, scalp, face & neck I 52, trunk in 23 and eyelid in 11.

Shajil *et al.* [10] found that incidence of vitiligo among new patients was 1.84%. A total of 365 patients were included in the study, out of which females (68.4%) were found to be more affected than males (31.6%), in a ratio of 2.1:1. The majority (32.82%) of the patients was in their second decade of life, and 58.63% of the patients were unmarried. A positive family history was present in 50 (13.7%) patients. Trauma (3.84%) was the most common precipitating factor, followed by emotional upset (2.19%) and physical pressure (0.82%). History of progressive vitiligo was obtained in 65.59% of the patients. Vitiligo vulgaris (64.9%) was the most common morphological pattern; other patterns seen were focal vitiligo (18.6%), acrofacial vitiligo (0.8%), mucosal vitiligo (14.8%), segmental vitiligo (1.4%), and

universal vitiligo (8.2%).

In this study, common triggering factors are identified by patients (40), physical trauma (48), surgery (3), psychological stress (12), pregnancy (5) and medical illness (4). Dave *et al.* [11] found that there were 449 men and 496 women (m:f 1:1.1) aged between 2 and 83 years (mean 24.4 years) and having vitiligo for 1 week to 64 years (mean 5.1 years). The majority, 478 (50.6%) patients were aged ≤ 20 years and 248 (26.2%) were children aged ≤ 12 years. The age at the onset was between 6 months and 82 years (mean 20.5 years), and the majority 674 (71.3%) patients had it before 25 years of age. The consultation time was within 5 years in 692 (73.2%) patients. A family history of vitiligo was present in 150 (15.9%) patients. The majority 871 (92.2%) patients had involvement of up to 10% body surface area and vitiligo vulgaris in 562 (59.5%) and focal vitiligo in 117 (18.7%) patients were the most common clinical types. An association with other systemic disorders was in 124 (13.1%) patients and predominately included thyroid abnormalities and diabetes mellitus.

We found that segmental pattern was seen in 14, non-segmental in 68, mixed in 20, vitiligo universalis in 5, genital involvement in 3 and mucosal involvement in 2. Although vitiligo may develop anytime in life, the onset in early infancy or old age is uncommon. Genetic factors, as in patients with affected first-degree relatives, too have suggested to influence the age of onset of vitiligo [12].

Conclusion

Vitiligo is a common skin disease. Most cases were in females and Scalp, face, neck were the mostly affected.

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