

Clinicoepidemiological Study of Childhood Vitiligo

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ABSTRACT

Introduction: Vitiligo is a cosmetically disfiguring, psychologically devastating disease and is resistant to therapy. Vitiligo in childhood can be associated with significant emotional trauma that may have long-lasting effects on the psychosocial development of these children and self esteem. Childhood vitiligo has different epidemiological, clinical, therapeutic, and prognostic profile. This study was carried out to assess the clinical and epidemiological characteristics of vitiligo in pediatric patients.

Material and methods: It was a prospective, observational study carried out over a period of 1 year. All patients younger than 18 years of age with vitiligo attending the Dermatology op of Osmania General hospital, hyderabad between April 2017 and March 2018 were included in the study.

Results: The most common pattern of vitiligo was vulgaris (48%) followed by focal (34%), mucosal (8%) acro-facial(6%), segmental (4%). Lower limb was the most common site for vitiligo seen in 56 patients (56%), followed by face (21%), upper limbs (10%), mucosal (8%) and scalp (5%). No patients had universal presentation. 27 patients (27%) had Leukotrichia whereas Koebner's phenomenon was positive in 24 patients (24%).

Conclusion: Childhood vitiligo is common depigmenting disorder encountered frequently in females probably due to higher concern about the disfiguring nature of disease in females, with a mean age of onset being around 6.3 years. Vitiligo vulgaris was the most common pattern of presentation, followed by the focal type of vitiligo while the universal pattern was rare in childhood. Lower limbs were the most common site of involvement followed by face. Patients with family history tend to present at an early age.

Keywords: Childhood Vitiligo, Vitiligo Vulgaris, Epidemiological Study

INTRODUCTION

Vitiligo is an acquired, idiopathic, progressive depigmenting disorder of the skin resulting from total absence of functional melanocytes. It affects between 0.5% and 4% of the general population. The age of onset is variable, but around 50% of the patients have an onset before the age of 18 years and a quarter before the age of 8 years. Vitiligo is a cosmetically disfiguring, psychologically devastating disease and is resistant to therapy. Vitiligo in childhood can be associated with significant emotional trauma that may have long-lasting effects on the psychosocial development of these children and self esteem.^{1,2}

Childhood vitiligo has different epidemiological, clinical, therapeutic, and prognostic profile. There are very few studies from india describing characteristics of childhood vitiligo leading to paucity of data. So this study was carried

out to assess the clinical and epidemiological characteristics of vitiligo in pediatric patients.

MATERIAL AND METHODS

It was a prospective, observational study carried out over a period of 1 year. All patients younger than 18 years of age with vitiligo attending the Dermatology op of Osmania General hospital, hyderabad between April 2017 and March 2018 were included in the study. First 100 patients younger than 18 years of age were taken into study. After taking an informed consent from the attendants of the patients, the clinical characteristics of the patients were noted in a predesigned proforma. A complete history including age, sex, family history, duration of the disease, history of Koebner's phenomenon, and history of associated diseases was noted. The patients were thoroughly examined, and data such as sites of involvement, pattern of vitiligo, halo nevus and leukotrichia were noted.

RESULTS

Out of the 100 paediatric patients who attended Dermatology OPD with vitiligo during the study, 57 patients (57%) were female and 43 patients (43%) were male. Most patients belong to 5-8 years of age with mean age of onset as 6.3 years. Duration of disease ranged from 3 months to 7 years. Family history of vitiligo was seen in 16 patients (16%), in which vitiligo was observed in the first-degree relatives of 7 patients. The most common pattern of vitiligo was vulgaris ($n = 48$, 48%) followed by focal ($n = 34$, 34%), mucosal ($n = 8$, 8%) acro-facial($n = 6$, 6%), segmental ($n = 4$, 4%). 3 patients had lip-tip pattern out of 6 patients with acro-facial pattern. Lower limb was the most common site for vitiligo seen in 56 patients (56%), followed by face (21%), upper limbs (10%), mucosal (8%) and scalp (5%). No patients had universal presentation. 27 patients (27%) had Leukotrichia whereas Koebner's phenomenon was positive in 24 patients (24%). Autoimmune associations were seen in 18 patients (18%). Other associations were, 12 patients (12%) with atopic dermatitis, 4 patients (4%) with alopecia areata, 8 patients (8%) with halo nevi.

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DISCUSSION

Out of 100 patients included in the study females outnumbered males (male:female 1:1.32). Most of the studies have reported a female predominance among the pediatric age group while a few studies have found equal distribution among the two sexes. Many Indian studies have reported the incidence among females ranging from 55% to 61%, but there are a few Chinese studies reporting equal incidence.²⁻⁵ Out of the 90 children with vitiligo in a study by Jaisankar *et al.*, 38.9% were boys and 61.1% were girls, which was statistically significant.⁶ The stigma associated with the disease could be the reason for the predominance among female patients, as parents sought help of physicians early in female patients. In our study the mean age of onset of childhood vitiligo is 6.3 years, most of the studies have reported a mean age of onset ranging from 5.6 to 7.28 years.^{4,7,8} 16 patients (16%) has a positive family history of vitiligo in our study with the mean age of onset in these patients lesser than study population (5.1 years vs 6.3 years). In a study by Pajvani *et al* a lower age of onset of vitiligo in patients with positive family history was reported.^{4,5,9}

In our study vitiligo vulgaris is the most common subtype in 48% followed by focal in 36% mucosal 8%, acrofacial in 6% and segmental in 4% patients. The presentation of vitiligo is variable in the pediatric population. Vitiligo vulgaris is the most common presentation followed by focal and segmental vitiligo in most studies.³⁻⁵ In a study by Kanwar *et al.*, of childhood vitiligo in 100 patients, vitiligo vulgaris is the most common subtype seen in 61%, followed by focal vitiligo in 23%.¹⁰

In the present study lower limb was the most common site of involvement seen in 56 patients (56%), followed by face (21%), upper limbs (10%), mucosal (8%) and scalp (5%), this corroborated with the study by Sheth *et al.*, who also reported that the most common sites of involvement were lower limbs seen in 62%, followed by face (46%), upper limbs (30%), scalp (25%), and mucosal (18%).¹¹ In contrast Hann and Lee reported that the most common initial site of onset was the face and neck.¹² In our study, the incidence of leukotrichia was 27% which is a common presentation in vitiligo and was corroborating with other studies.^{10,11} Koebner's phenomenon is an indicator of disease activity in vitiligo and it is commonly seen. In our study, Koebner's phenomenon was seen in 24 patients (24%), which was corroborating with incidence rates reported in various other studies which vary from 21.5% to 34%.^{3,5,11}

CONCLUSION

Childhood vitiligo is common depigmenting disorder encountered frequently in females probably due to higher concern about the disfiguring nature of disease in females, with a mean age of onset being around 6.3 years. Vitiligo vulgaris was the most common pattern of presentation, followed by the focal type of vitiligo while the universal pattern was rare in childhood. Lower limbs were the most

common site of involvement followed by face. Patients with family history tend to present at an early age.

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