

## A clinical study of the spectrum of vitiligo in children versus adults and its associations

Sir,

Vitiligo affects all races, religion and as such has no gender predilection, though the highest prevalence is reported from India. The purpose of our study was to know the spectrum of vitiligo in adults versus pediatric population, to find out if any association is observed between vitiligo and other autoimmune diseases and also to compare this study with other studies done in other parts of India and other countries to document any regional and racial differences.

The study was descriptive in nature and was done after obtaining permission from the Institute Ethics Committee and written informed consent from patients and parents of children from June 2011 to July 2011 on a group of vitiligo patients numbering 50. The inclusion criteria were all patients of vitiligo, irrespective of age and gender and the exclusion criteria being doubtful cases or cases not having vitiligo. Detailed history, meticulous physical examination and relevant investigations were done.

A total number of 50 patients with mean age of 36.36 years ranging from 3 years to 95 years, with 6 children below 12 years and 44 adults were included in the study. The gender ratio (male:Female) for the whole study group was 1:2.6, for children it was 1:2 and for adults it was 1:2.7. Majority of patients were labourers ( $n = 35$ ). Majority of adults (63.63%,  $n = 28$ ) had a disease duration of 1-5 years at presentation and the same was true for children too (83.33%,  $n = 5$ ). Five (11.36%) adults had a positive family history of vitiligo whereas none of the children had a positive family history. Both skin and mucosa were involved in adults and children. In adults, vitiligo vulgaris was the most common type ( $n = 32$ ), followed by focal ( $n = 5$ ) and segmental ( $n = 4$ ) vitiligo [Table 1]. In children, two types of vitiligo were found, vitiligo vulgaris ( $n = 4$ ) and segmental vitiligo ( $n = 2$ ). Most common special sign was found to be trichrome vitiligo ( $n = 25$ ) and other signs observed were leukotrichia ( $n = 9$ ) and quadrichrome vitiligo ( $n = 1$ ). Appearance of new lesions was a feature in 13 adults (out of 44) and 2 children (out of 6). Most of the patients (26 out of 50) had less than or equal to 5% body surface area involvement. Tinea versicolor was present in

**Table 1: Type of vitiligo in adults versus children**

| Type of vitiligo  | Adults | Children |
|-------------------|--------|----------|
| Vitiligo vulgaris | 32     | 4        |
| Segmental         | 4      | 2        |
| Focal             | 5      | 0        |
| Acrofacial        | 3      | 0        |
| Total             | 44     | 6        |

two adults and one child. Exfoliative dermatitis was present in one adult. Thyroid disorders and diabetes mellitus were commonly associated systemic disorders. Thyroid disorders were present in 7 adults (out of 44) and one child (out of 6), whereas 6 adults (out of 44) had diabetes mellitus.

Many studies have indicated that vitiligo is acquired mostly early in life; however, in our study, a large number of patients (36 out of 50) showed onset after 18 years of age. The mean age of onset of the study group was 31.16 years in our study, and this was in agreement with Italian reports.<sup>[1]</sup> Mean age of onset in children was recorded to be 5 years in our study, which was consistent with the previous reports.<sup>[2,3]</sup> We observed a female preponderance in our study, which was in agreement with the previous studies.<sup>[1-4]</sup>

Consistent with most of the studies, vitiligo vulgaris was the most common type (64%) in the whole group. In adults, vitiligo vulgaris ( $n = 28$ ) was followed by focal ( $n = 5$ ), segmental ( $n = 4$ ), universal ( $n = 4$ ) and acrofacial ( $n = 3$ ) vitiligo, whereas in children only two types-vitiligo vulgaris ( $n = 4$ ) and segmental ( $n = 2$ ) vitiligo were present. In children, segmental vitiligo was more common (33.33%) as compared to adults (9%), and this observation is in agreement with other studies.<sup>[5,6]</sup> Acrofacial vitiligo was observed to be the least common type in our study (6% of all patients). Universal vitiligo (>80% of body surface area involvement) was seen in 4 adults (8% of the whole group). A major difference was observed in Chinese studies where focal and segmental vitiligo together were much more common than vitiligo vulgaris.<sup>[7,8]</sup>

In our study, vitiligo was found to be associated with trichrome vitiligo (50%), leukotrichia (18%) and quadrichrome vitiligo (2%) in the whole group. Leukotrichia, which is associated with bad prognosis was present in 16% of adults and 33.33% of children in our study, while it was present in 3.7-4.4% of pediatric patients in the study done by Jaisankar *et al.*<sup>[9]</sup> and 12.3% in the study by Handa and Dogra.<sup>[4]</sup> In a recent study carried out in Tunisia,<sup>[1]</sup> 23.3% of patients had leukotrichia and similarly in China,<sup>[9]</sup> 29.3% had leukotrichia, which was significantly higher than that found in our study.

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