Study

Pityriasis versicolor in the pediatric age group

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ABSTRACT

Background: Pityriasis versicolor (PV) is a mild chronic infection of the skin caused by Malassezia yeasts. Although it is primarily seen in adults, children are often affected in the tropics. **Methods:** Over a period of 2 years, children (up to the age of 14 years) who were clinically and mycologically diagnosed as PV were included in the study. The clinical and epidemiological pattern in different age groups was noted. **Results:** PV in this age group formed about 31% of the total cases of PV; 4.8% cases presented in infancy. The commonest site of involvement was the face in 39.9% of the cases. Most of the cases presented in summer months. **Conclusions:** PV is not an uncommon disease among children in the tropics. There is a sudden resurgence of cases in the hot monsoons and even infants are not spared.

Key Words: Childhood, Pityriasis versicolor

INTRODUCTION

Pityriasis versicolor (PV) is a superficial mycosis, affecting the superficial layer of stratum corneum.[1] The causative organism is *Malassezia furfur*, a yeast-like lipophilic fungus. Previously the mycelial form was called either *P. ovale* or *P. orbiculare*.[2] In 1951, Gordon isolated the organism *M. furfur* and renamed it *P. orbiculare*. It was recognized that *M. furfur* is the correct name and that *P. orbiculare*, *P. ovale*, and *M. ovalis* are synonyms.[3] The disease is most prevalent in early adulthood and small children are rarely affected.[3]-[6] PV is common in the post-pubertal age where sebaceous glands are active and in individuals who sweat more.[7] There is often a positive family history of the disease.[10]

An increase in humidity, temperature and carbon dioxide tension are important predisposing factors.[3],[5] The prevalence in colder climates is less than 1%.[8] *M. furfur* is a component of the normal skin flora in more than 90% of adults living in tropical areas.[14] PV, consequently, is more common in the tropics than in temperate zones.[2]

MATERIALS AND METHODS

Two hundred and seventy one cases of PV up to the age of 14 years attended the Dermatology OPD of the S.C.B. Medical College, Cuttack during the study period of 2 years. They were diagnosed based on clinical criteria and confirmed by Wood's lamp examination and demonstration of organisms by 10% KOH examination of skin scrapings.

RESULTS

In the study period of 2 years, 271 children were diagnosed with PV, accounting for 31% of the total PV cases attending the outpatient department. There were

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Table 1: Age Distribution

Age in yrs	Male	Female	Total	Percentage
0-1	6	7	13	4.8
>1-5	33	38	71	26.2
>5-8	40	20	60	22.1
> 8-12	48	38	86	31.7
>12-14	23	18	41	15.1
Total	**150**	**121**	**271**	**100**

150 boys and 121 girls. The majority of patients were aged 8-12 years [Table 1], but 10 infants (3.7%) were also affected. The duration of infection was less than 6 months in all cases.

Many patients (102 [37.6%]) gave history of profuse sweating and some of these (26 [9.6%]) had mild pruritus. All patients had characteristic skin lesions, achromic or hypochromic macules with an irregular margin. Hyperpigmented macules with mild scaling were present in 28 [9.3%]. The most common site involved was the face (39%) [Table 2]. Extensive involvement was seen in 45 [16.6%] children with lesions on the neck, shoulder and back.

Majority of cases (186 [68.6%]) presented between June and November [Figure 1], when the environmental temperature and relative humidity are quite high in Cuttack. None of the children had any associated systemic disease. A large majority of the children (194 [71.6%]) hailed from the lower and middle socioeconomic groups. Six per cent cases (16 patients) had a family history of PV.

On microscopic examination hyphal forms were found in 196 cases [72.3%] and the "spaghetti and meat ball"

Figure 1: Multiple hypopigmented macules of pityriasis versicolor on the cheek of a child

Table 2: Site of Affection

Site	Male	Female	Total	Percentage
Face	60	48	108	39.9
Arm and chest	35	24	59	21.8
Neck, back and shoulder	22	23	45	16.6
Abdomen	19	16	35	12.9
Thigh	14	10	24	8.8
Total	**150**	**121**	**271**	**100**

(hyphae and spores) pattern in the rest [27.7%].

DISCUSSION

We observed a marked increase in the incidence of PV during the summer and monsoon and a sudden fall in December to February. Michalowski et al and Terragni et al also found a similar increased incidence during the warmer months.[9],[10] In an Indian study by Miskeen, 71.2% of cases were seen in the hot months of May to October.[15]

The most common age group involved was 8-12 years. Most of the patients in a study by Silva et al were in the 11-15 years age group.[11] In addition, 10 infants were found to be affected in our study. Di silverio et al also reported PV in infants.[6] None of the cases were associated with systemic diseases.

The most commonly involved site was the face (39.9%), which was observed by Akpata et al[12] and Terragni et al too.[13] In fact, Terragni et al opine that the face is usually the only site affected by PV in children, in contrast to adults.[12] The thigh and legs were also affected, which is unusual in adults. PV lesions over the face were smaller than those present on the trunk.

On microscopic examination we found the hyphal forms to be commoner [72.3% cases] than the "spaghetti and meat ball" (hyphae and spores) pattern [27.7%]. This finding is in contrast to the observation that in adult patients with PV, the 'hyphae and spore' pattern is the commonest finding. We have not been able to explain the cause of this variation but this particular observation was also found in another Indian study by Miskeen et al.[15]

In conclusion, we believe that PV is not an uncommon disease in children. We have also noticed a sudden spurt

of the disease in children during the monsoons, and even infants are not spared.

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