

HYPOPIGMENTED PITYRIASIS VERSICOLOR IN INFANTS: A COMMON DISEASE IN AN UNCOMMON AGE GROUP

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Abstract

Pityriasis versicolor (PV) is a superficial fungal infection of the skin, caused by *Malassezia* yeast, primarily seen in post pubertal age group. We are reporting a series of 3 infants who presented to the OPD with round to oval hypopigmented flat lesions during monsoon season, with no family history of any such lesions in any of the members. Diagnosis was confirmed by Wood's lamp examination and KOH mount. All 3 infants responded to topical ketoconazole lotion in 1 month.

INTRODUCTION

Pityriasis versicolor (PV) is a superficial fungal infection of the epidermis, caused by *Malassezia* yeast, primarily seen in adults. PV is common in post pubertal age group, as sebaceous glands become active under the influence of androgens.⁽¹⁾ Very few cases have been reported in infants, especially the hypopigmented variant and is rare on the face.⁽²⁾

Case 1

A 4 month old healthy female infant came to our Dermatology clinic with mother giving history of asymptomatic round to oval light coloured flat lesions over the face and upper chest since 15 days. There was no history of skin lesion prior to onset of hypopigmentation or any topical application. Patient was immunised for age. She was born by normal vaginal delivery at term. Antenatal and postnatal period were uneventful.

The other family members had no similar lesions. On examination, multiple, well defined, round to oval discrete as well as coalescing hypopigmented macules of size 0.5cm to 1.5cm, were seen over the face, upper chest and back. On scrapping, the surface of the lesion, a fine white semi adherent scale was demonstrated.

On Wood's lamp examination, hypopigmented areas showed light yellow fluorescence (Fig 2 a, b). A potassium hydroxide mount (10%) showed 'spaghetti and meatball' appearance of the mycelial and yeast forms, supporting the diagnosis of PV.

Case 2 and 3 had similar features and the history, examination and KOH findings are summarised in Table 1.

Table 1: Clinical profile of cases of PV in infants

| Age/Sex | Duration of lesions | Sites affected | Pruritus | History of topical application on lesions | Family history | Cutaneous examination | Scratch sign | KOH |
|--------------------|---------------------|---|----------|---|-------------------------------|--|--------------|----------|
| 4months/ Female | 15 days | Face, upper chest | Absent | None | Negative | Multiple, well defined, round to oval hypopigmented macules of size 0.5cm to 1.5cm | Positive | Positive |
| 11 months/ Male | 20 days | Neck, upper trunk, upper back | Absent | None | Mother – Tinea corporis | Multiple, well defined, round discrete hypopigmented macules of size 0.2-0.5 cm with fine white semi adherent scaling | Positive | Positive |
| 5 months/ Male | 2 months | Forehead | Absent | Emollient | Negative | Multiple, discrete, well defined hypopigmented macules of size 2-3mm | Positive | Positive |

Management

All 3 patients were started on 2% ketoconazole lotion twice daily application for 1 month. After treatment, the lesions showed significant improvement in hypopigmentation.

DISCUSSION

Malassezia furfur, the commonest causative organism for PV, are commensals of the skin. In a study by Honnavar et al⁽⁶⁾, PV lesions were sampled and the most commonly isolated species was *M. furfur* (50%), which was followed by *M. globosa* (27.3%), combination of *M. furfur* and *M. globosa* (15.9%), *M. sympodialis* (4.5%), and *M. slooffiae* (2.3%).

The organism begins to colonise the skin within the first few days of life of a neonate, with the mother being the reservoir in most of the cases.⁽³⁾ Immunosuppression, positive family history, use of antibiotics and corticosteroids, elevated temperature and humidity, use of oils, under nutrition are some of the predisposing factors found in cases of PV in infants.⁽⁴⁾

Kaliyadan et al⁽⁷⁾ reported an increased presentation of PV in children on the part of face covered by mask during COVID-19 pandemic.

PV is known to be much less common in the childhood because of low sebaceous gland activity.⁽⁵⁾ In a study by Jena et al⁽¹⁾, only 13 out of 271 pediatrics PV patients were infants. They also observed that face was the most common site of involvement and reported positive family history in 6% cases overall. However, in our case series, none of the cases had family history of pityriasis versicolor. This could be explained by the climatic conditions as all the 3 cases came to us in the month of July.

No clear guidelines have been formulated regarding the treatment of pityriasis versicolor in infants. Treatment options include topical treatment with azole groups, terbinafine and 2.5% selenium sulfide shampoo. Systemic therapies like itraconazole or fluconazole, although

usually not required, may be considered in extensive or non-responsive cases or even in those experiencing relapses.⁽⁸⁾

These drugs are well tolerated in infants.^(8,9) Our patients did not require systemic treatment. A 7-day regimen with itraconazole or a 2–4-week course with fluconazole for the treatment of tinea versicolor has been recommended by the British National Formulary for Children. In a review by Ching et al, itraconazole when given for a short duration in infants is safe at a dose of 5 mg/kg/day for use in superficial fungal infections.⁽⁹⁾

CONCLUSION

PV although uncommon in infants, should be considered as one of the possibilities in case of hypopigmented 2-10mm macules over face, even in the cases of a negative family history.

It is also important to note that topical therapy with 2% ketoconazole is safe and effective in infants with pityriasis versicolor. Review of literature suggests that no clear guidelines have been made for treatment of pityriasis versicolor in infants, including the resistant cases, and the issue needs to be addressed.

References

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Legends

Fig 1

4 months old with discrete and coalescing hypopigmented macules present over the:

- a) forehead
- b) temples



Fig 1 (a), (b)

Fig 2

- a) Wood's lamp examination showing hypopigmented areas with light yellow fluorescence
- b) KOH examination from scrapping showing yeast (blue arrow) and mycelia (red arrow) in the typical spaghetti and meatball pattern

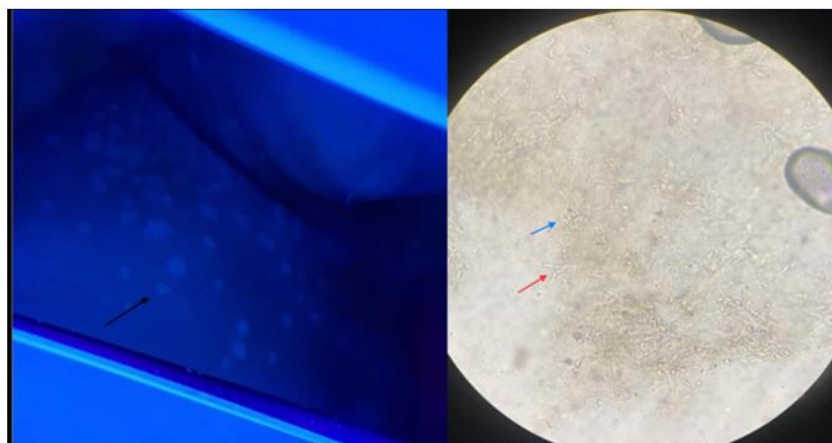


Fig 2 (a), (b)

Fig 3

Case 2: 11-month old infant with discrete hypopigmented macules over neck, upper back and upper chest with positive scratch sign



Fig 3

Fig 4

Case 3: 5 months old male infant with pinhead sized, hypopigmented macules over forehead with few showing minimal scaling



Fig 4