



# Infantile hypopigmented pityriasis versicolor: two uncommon cases

Infantil hipopigmente pitiriazis versikolor: iki nadir olgu

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## Abstract

Pityriasis versicolor is a common infection of the epidermis in adults, but only a few cases of this infection (especially the hypopigmented type) have been reported in infants aged under one year. Herein, we document a report of these cases and a review of the literature. Two patients with infantile pityriasis versicolor, who presented with hypopigmented macules on the neck, upper back, and chest are reported. A KOH examination was suggestive of pityriasis versicolor and our patients responded well to 1% clotrimazole lotion (twice a day) for four weeks. Pityriasis versicolor should be considered in the differential diagnosis of hypopigmented macules and patches in infants.

**Keywords:** Hypopigmented, infantile, pityriasis versicolor, tinea versicolor

## Öz

Pitiriazis versikolor erişkinlerde epidermin sık görülen bir enfeksiyonudur, ama bir yaşın altındaki bebeklerde sadece birkaç olgu bildirilmiştir (özellikle hipopigmente tip). Bu olgularla ilgili bir bildiri ve dizin incelemesini belgelendirdik. Boyun, sırtın üst bölümü ve göğüste hipopigmente maküllerle başvuran iki infantil pitiriazis versikolor olgusu bildirilmiştir. KOH testi pitiriazis versikoloru düşündürmüştü ve hastalarımız dört hafta süre ile uygulanan %1 klortrimazol losyonuna (günde iki kere) iyi yanıt vermişlerdi. Bebeklerde, hipopigmente maküller ve lekelerin ayırıcı tanısında, pitiriazis versikolor düşünülmelidir.

**Anahtar sözcükler:** Hipopigmente, infantil, pitiriazis versikolor, tinea versikolor

## Introduction

Pityriasis versicolor (PV) is a common superficial fungal infection that usually involves the chest and back in early adulthood (1). However, it can also occur rarely in small children (2). Pityriasis versicolor can manifest as scaly macules or patches with various colors, red, pale yellow or brown (1).

To our knowledge, there are few reported cases of PV in infants aged under one year (especially the hypopigmented type). Herein, we report two cases of hypopigmented PV and review the associated literature.

## Case

**Case 1.** An 8-month-old infant girl presented to our dermatology clinic with hypopigmented lesions. She was born by normal vaginal delivery at 38 weeks' gestational age. She had a history of hypopigmented lesions from 3 months ago, without pruritus. Other family members had no similar cutaneous lesions. A physical examination showed numerous hypopigmented macules on the lateral face, neck, upper back and chest (Figure 1a, b).

**Case 2.** A 4-month-old infant girl in good health was examined for hypopigmented macules on the face that had been

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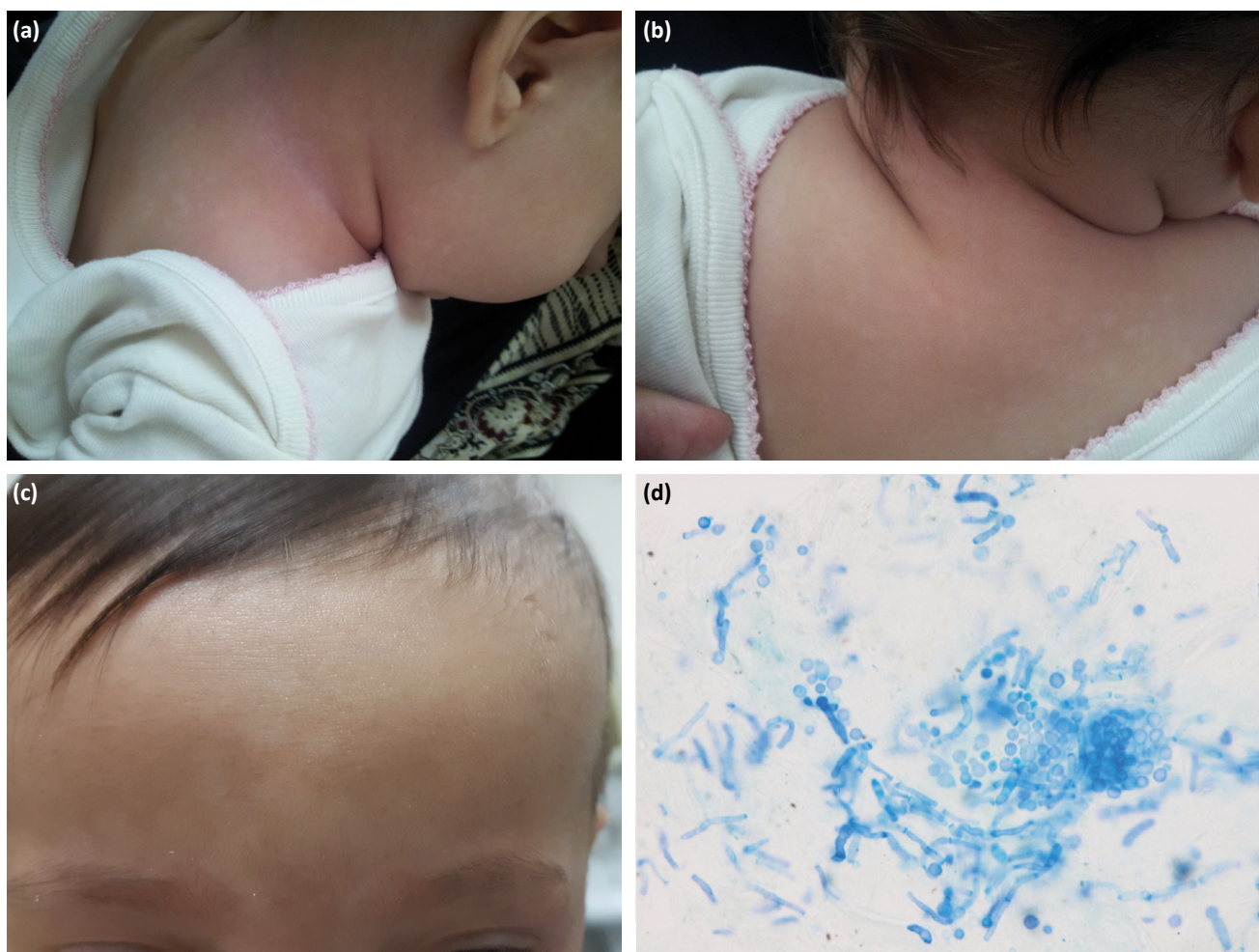
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**Figure 1.** (a, b) Hypopigmented macules on the lateral face, neck, upper back; (c) Numerous confluent hypopigmented macules on the frontal area of the face; (d) Yeast and short hypha with appearance of 'spaghetti and meatballs' in KOH examination

noted at the age of 2 months. On physical examination, numerous confluent hypopigmented macules with fine scales located on the frontal area of the face were noted (Figure 1c).

In both cases, examinations using a Wood's lamp showed hypopigmented processes in the aforementioned areas and also yellowish fluorescence on some lesions. A potassium hydroxide (KOH) examination revealed yeast and short mycelial forms resembling 'ziti and meatballs,' which supported the diagnosis of PV (Figure 1d).

These patients were treated with 1% clotrimazole lotion (twice a day) for four weeks. After treatment, the lesions were still present but with less severity and KOH smears showed negative results for fungal elements. Written informed consent was given by the parents of the patients.

## Discussion

Hypopigmented macules and patches in infants have

a variety of etiologies such as pityriasis alba, nevus depigmentosus, nevus anemicus, ash-leaf spot in tuberous sclerosis, and uncommonly, PV (3). *Malassezia* species are commensal flora of the skin and its colonization is established at birth and increases with age (4). The genus *Malassezia* has been known to cause PV, and *Malassezia furfur* is the most common pathogen in this group (4). The prevalence of PV is higher in the third and fourth decades of life and it is uncommon in children (1, 4). We were able to find nine documented reports of infantile PV (Table 1).

The site of involvement varies according to age; for example, lesions of the face and trunk in children and adolescents, respectively, are the most common sites to be affected (1, 4). Predisposing factors for PV include malnutrition, immunosuppression, diabetes mellitus, use of oils and oily creams, hyperhidrosis, and corticosteroid therapy (1, 5, 6). Genetic factors may play a role in the pathogenesis, and a positive family history was observed in approximately 20% of patients in some studies (7).

Table 1. Reported cases of infantile pityriasis versicolor (under one year of age) with clinical details

| Author/<br>Year     | Sex/<br>Age      | Region       | Physical exam                               | Location                                                       | Family<br>history    | Past medical<br>history             | Delivery | Treatment                   | KOH after<br>treatment | Follow<br>up |
|---------------------|------------------|--------------|---------------------------------------------|----------------------------------------------------------------|----------------------|-------------------------------------|----------|-----------------------------|------------------------|--------------|
| Congly H<br>1984    | Male/<br>3 m     | Saskatchewan | Erythematous scaly<br>macules and patches   | Dorsal aspect<br>of the upper<br>arm, shoulders,<br>upper back | Negative             | Negative                            | NA       | Clotrimazole<br>1% solution | NA                     | 3 m          |
| Di Silverio<br>1995 | Male/<br>2 m     | Italy        | Hyper-hypo<br>pigmented scaly<br>macules    | Cervical, scalp,<br>face,<br>upper chest                       | Negative             | Negative                            | NVD      | Econazole<br>1% lotion      | Negative               | 3 wk.        |
| Arti Nanda<br>1998  | Male/<br>3 wk.   | India        | Several<br>hypopigmented<br>macules         | Forehead                                                       | Negative             | Negative                            | NVD      | Clotrimazole<br>1% solution | Negative               | 6 wk.        |
|                     | Male/<br>4 m     | India        | Hypopigmented<br>scaly lesion               | Neck, upper<br>trunk, arms, face                               | Positive<br>(Mother) | Negative                            | NA       | Clotrimazole<br>1% solution | Negative               | 2 m          |
|                     | Male/<br>5 m     | India        | Light brown, scaly<br>macules               | Neck                                                           | Negative             | Atopic dermatitis                   | NA       | Clotrimazole<br>1% solution | NA                     | 1 m          |
|                     | Male/<br>4 wk.   | India        | Hypopigmented<br>scaly macules              | Forehead                                                       | Negative             | NA                                  | NVD      | Tolnaftate<br>solution      | NA                     | NA           |
|                     | Female/<br>5 wk. | India        | Hypopigmented<br>scaly macules              | Face, forehead                                                 | Negative             | NA                                  | NA       | Tolnaftate<br>solution      | Negative               | 2 m          |
| Elisabet J<br>2015  | Male<br>/3 wk.   | Spain        | Hypopigmented<br>macules and patches        | Upper trunk,<br>face, neck                                     | Negative             | Premature birth<br>LBW<br>TPN       | NA       | Intravenous<br>fluconazole  | NA                     | 3 m          |
|                     |                  |              | Hypopigmented<br>macules with fine<br>scale |                                                                |                      | ICU admission<br>Antibiotic therapy |          |                             |                        |              |
| Z Ben Said/<br>2010 | Male/<br>3 m     | Tunisia      | Hypopigmented<br>macules                    | Cervical, chest                                                | Positive<br>(mother) | Negative                            | NA       | Topical<br>antifungal       | NA                     | 2 m          |
| Present<br>cases    | Female/<br>8 m   | Iran         |                                             | Lateral face,<br>neck, upper<br>back and chest                 | Negative             | Negative                            | NVD      | Topical<br>antifungal       | Negative               | 2 m          |
|                     | Female/<br>4 m   | Iran         | Hypopigmented<br>macules                    | On the frontal<br>area of the face                             | Negative             | Negative                            | NVD      | Topical<br>antifungal       | Negative               | 2 m          |

m: Month; NA: Not available; NVD: Normal vaginal delivery; wk: Week

The clinical diagnosis of PV is comfortable, a gold-yellow fluorescence of the lesions in a Wood's light examination is helpful. Direct observation of yeast and short hypha likened to 'spaghetti and meatballs' in KOH preparations of skin scrapings are characteristic (8). Treatment options include azole group, allylamines group, a hydroxy-pyridone group antifungals and also 6% salicylic acid, ciclopiroxolamine and selenium sulfide 2.5% (1, 5). Topical treatment in PV is sufficient and the initial therapy in most patients, as it was in our cases. The duration of topical treatments is 4-6 weeks (1, 9). Various systemic antifungals such as fluconazole are usually used for extensive and refractory infections (9).

### Conclusion

Pityriasis versicolor is uncommon in infants, especially those aged under one year, and affected children mostly present with atypical features; therefore, this infection should be kept in dermatologists' minds.

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