

Figure 2: Subcorneal cleavage of the skin (H&E 40 X)

described by Fox in 1921, and is characterized by shedding of the entire skin including the face, comparable to the shedding of skin by reptiles. The peeling occurs in the lower part of the stratum corneum. The second type, first described by Wile in 1924, presents with erythroderma at birth, and is associated with features such as growth retardation, aminoaciduria, etc. The epidermis is psoriasiform with an absent or reduced granular layer and with marked parakeratosis. The split occurs at the level of the granular layer.² It has been suggested that the basic lesion is located at the stratum corneum-granular layer junction; ultrastructually, intercellular disruption occurs above the lower two layers of the stratum corneum within the stratum lucidum.⁴

The cause of this disorder is unknown.⁵ It has been postulated that the defect is reduced adherence of abnormally thick stratum corneum to the stratum granulosum.⁶ In some patients, association of easy pluckability of hair, shedding of nails, hypogonadism and anosmia has been described.⁴ Usually there are no seasonal exacerbations, but some patients appear to worsen in summer.⁵ As far as treatment is concerned, emollients such as petrolatum jelly and salicylic acid gel may be helpful in improving the appearance.⁷ Drugs derived from vitamin A, such as tretinoin and etretinate, could be effective.⁸ In the present case, the history of

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exacerbation during the summer and sparing of the palms and soles are uncommon and interesting features.

Amiya Kumar Mukhopadhyay

Address for correspondence: Amiya Kumar Mukhopadhyay, "Pranab", Ismile (Near Dharmaraj Mandir), P.O. Asansol - 713301, India. E-mail- dramiyaurmi@yahoo.co.in

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Ringworm of the scalp in a 5-day-old neonate

Sir,

While moniliasis in newborns is not uncommon, superficial dermatophyte infection is quite rare. We report a neonate with ringworm of the scalp caused by *Trichophyton rubrum*, present since the fifth day of birth.

A 10-day-old baby girl was seen in the Skin Outpatient Department with multiple erythematous plaques on her scalp since 5 days. She was a full term Caesarian delivery with a birth weight of 3.1 kg. She had a normal cry at birth. Examination of the child revealed multiple erythematous annular plaques of varying sizes on the frontal and parietal regions of the scalp (Figure 1). The lesions had active scaly papular margins. The scalp hairs were normal and could not be plucked out easily.

KOH examination of skin scrapings from the active edge revealed the presence of numerous long, septate, branched hyphae. Culture on Sabouraud's dextrose agar grew *Trichophyton rubrum*. KOH microscopy from plucked scalp hair was performed on three occasions and was negative; culture for fungus also showed no growth after 4 weeks of incubation. Examination of mother and other family members did not show any evidence of dermatophytosis. There was no history of keeping pets in the family. The baby was treated with topical clotrimazole solution with complete resolution of lesions in 2 weeks.

Dermatophyte infection is rare in infancy; neonatal infection is still rarer. Infection is acquired by deposition of viable arthrospores or hyphae on the surface of susceptible persons. The source of infection is usually an active lesion on an animal or another human; fomites and soil may serve as other sources of infection. In young children infected with *Trichophyton rubrum* and *Epidermophyton floccosum*, the infection is usually acquired from their parents.¹ The incubation period of dermatophytosis is 1-3 weeks. There have been a few case reports of tinea occurring in 21-day, 8-day, 6-day and 2-day-old neonates.²⁻⁵ The



Figure 1: Ringworm lesions on the scalp

earliest case was reported by Lynch in 1876 who noted tinea faciei in an infant only 6 hours old.⁶ However, this was not documented with KOH microscopy or culture.

The development of scalp ringworm at day 5 of birth in this case is indeed interesting. The mother of the child and other family members did not have any evidence of active ringworm. However, the possibility of an asymptomatic family member carrier of *Trichophyton rubrum* serving as a source of infection can not be ruled out. Such a carrier state has been reported with *Trichophyton tonsurans*.⁷ The infection may also have been acquired from infected hospital staff or clothing. Another interesting observation in our patient was the occurrence of tinea on glabrous skin of the scalp without involvement of the hair. The case has therefore been designated as "ringworm of scalp" and not as 'tinea capitis' where involvement of hair is a sine qua non.

> M. K. Singhi, Lalit K. Gupta, B. C. Ghiya, Ravindra Dhabhai Department of Dermatology, Venereology & Leprology,

Dr. S. N. Medical College, Jodhpur, India.

Address for correspondence: Dr. M. K. Singhi, H. No. 3, MDM Hospital Road, Jodhpur, India. E-mail: mks_2_in@yahoo.com

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