# Infantile Erythroderma with a Crazy Pavement-Like Pattern Complicated by Candida Sepsis: An Unusual Presentation

Dear Editor,

Erythroderma is an inflammatory disorder characterized by erythema and scaling involving greater than 90% of the body surface area. Erythroderma in children is commonly attributed to infections (40%), ichthyosis (25%), atopic dermatitis (15%), and seborrheic dermatitis (10%), whereas 10% may still remain unidentified.[1] Childhood erythroderma may become life-threatening requiring intensive care, placing them at risk for nosocomial infections. In this report, we describe two cases of infantile erythroderma complicated by nosocomial candida infections characterized by a unique crazy pavement pattern.

Two male infants aged 3 months (case 1) and 5 months (case 2) presented with fever and erythroderma of 1-week duration. Case 1 was associated with bronchopneumonia and umbilical sepsis. He was treated with intravenous antibiotics in a local hospital before admission to our hospital. A provisional diagnosis of atopic dermatitis or immunodeficiency was considered and evaluated. On the fifth day of admission, the child developed large scales interspersed with erosions on the trunk and extremities [Figure 1]. He had leukocytosis (25,500 cells/mm$^3$), high C-reactive protein (CRP) (94.5 mg/L), serum ferritin (745.1 ng/mL), and hypernatremia (157 mEq/L). Potassium hydroxide mounts (KOH) from the scales showed budding yeast cells with blood culture showing growth of *Candida tropicalis* [Figure 2]. Cutaneous lesions improved with a mosaic pattern of healing [Figure 3].

Case 2, born of consanguineous marriage, was a known case of glucose and galactose intolerance (*SLC5A1* mutation) on metanutrition. He had a history of recurrent diarrhea and seizures. With a provisional diagnosis of erythroderma secondary to biotin and zinc deficiency, the child was supplemented for the same. Skin biopsy showed orthokeratosis, parakeratosis, spongiosis, hypogranulosis, and perivascular lymphocytic infiltrate [Figure 4]. After 10 days of erythroderma, he eventually progressed to develop large scales interspersed with erosions and fissuring in a mosaic pattern [Figure 5]. His investigations showed leukocytosis and elevated CRP (>100 mg/L). KOH showed pseudohyphae, and skin swab and blood culture showed the presence of *Candida duobushaemulonii*.

Both children with a diagnosis of erythroderma with systemic candidal infection received intravenous fluconazole but eventually succumbed to death due to sepsis.

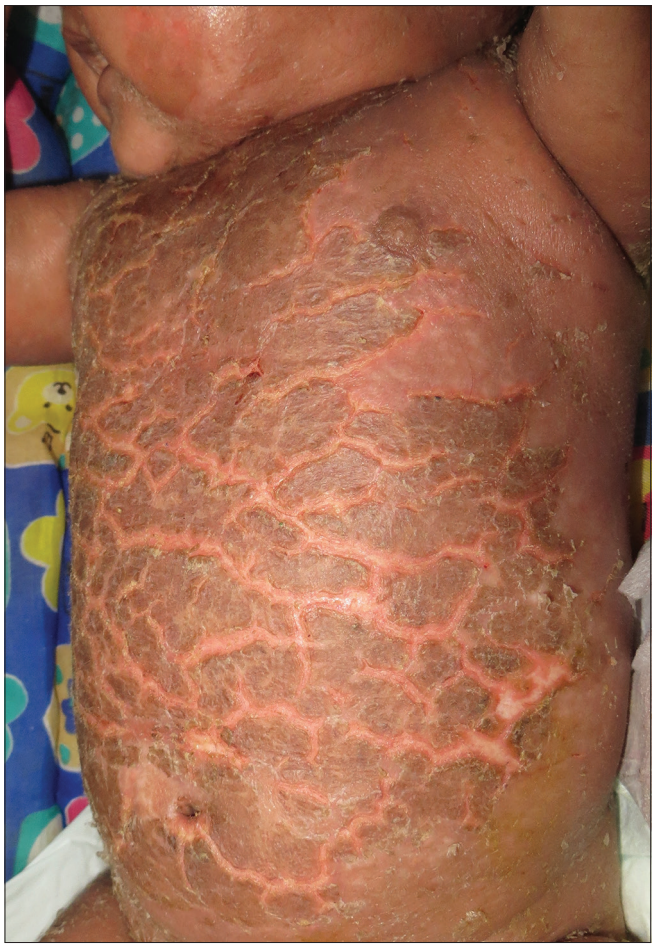

**Figure 1: Large scales interspersed with erosions in crazy pavement pattern superimposed on erythroderma in case 1**

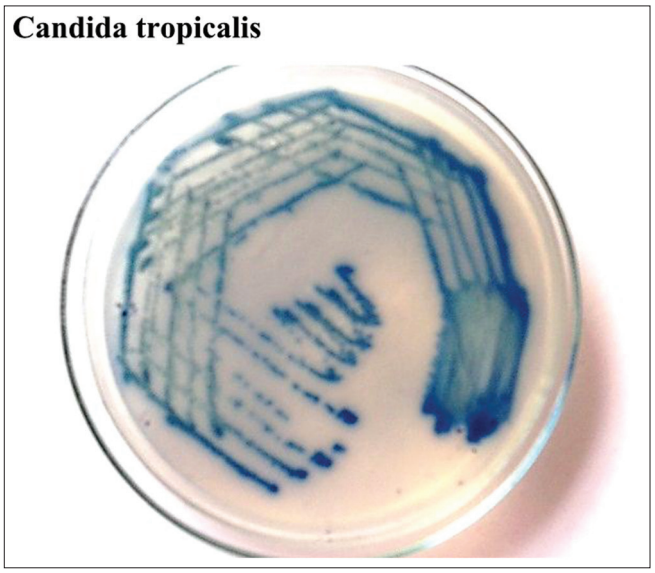


**Figure 2: Blood culture showing colonies of *Candida tropicalis***

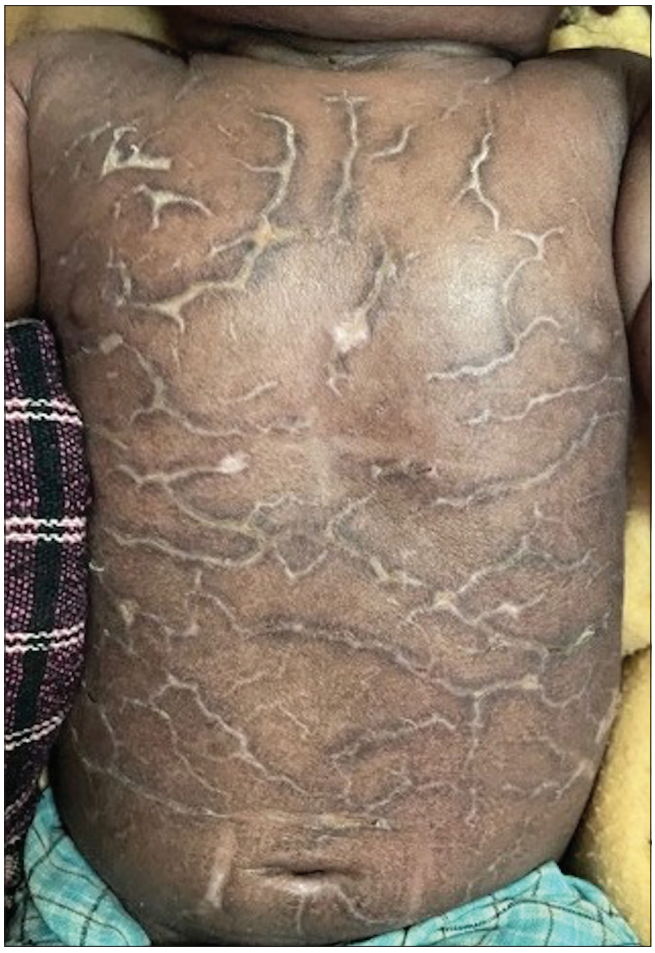

**Figure 3: Mosaic pattern of healing seen in case 1**

In our cohort, both cases developed a unique cutaneous mosaic pattern similar to crazy pavement superimposed on erythroderma, possibly attributed to candidal sepsis. "Crazy pavement pattern" is a well-recognized cutaneous feature in kwashiorkor. This type of dermatosis of kwashiorkor indicates a poor prognosis and may be an indicator of death.[2] Candida infections have been reported as one of the most common infections in neonatal intensive care units.[3] Invasive fungal dermatitis presenting as erythema with erosion and desquamation due to *Candida albicans* has been described in only extremely premature newborns, unlike the term babies in our report.[4] Erythroderma with bullae and erosions due to *Candida tropicalis* have been reported in the past.[5] However, there are no reports in the literature of the association of specific skin lesions with *Candida tropicalis* and *Candida duobushaemulonii*.

We, the authors, would like to conclude that such a unique pattern developing with erythroderma should not be overlooked and every attempt should be considered to delineate the occurrence of this pattern. We suggest that this "crazy pavement pattern" could possibly indicate an underlying candidal infection as both cases had KOH mount, skin swab, and blood culture corresponding to the diagnosis. This report highlights the importance of carrying out KOH and skin swab culture in erythroderma and could further encourage dermatologists to record such patterns encountered in their practice to get a definitive cause of this unique pattern developing with erythroderma—whether it is a coincidence or an association, which would help in early management and prevent mortality.

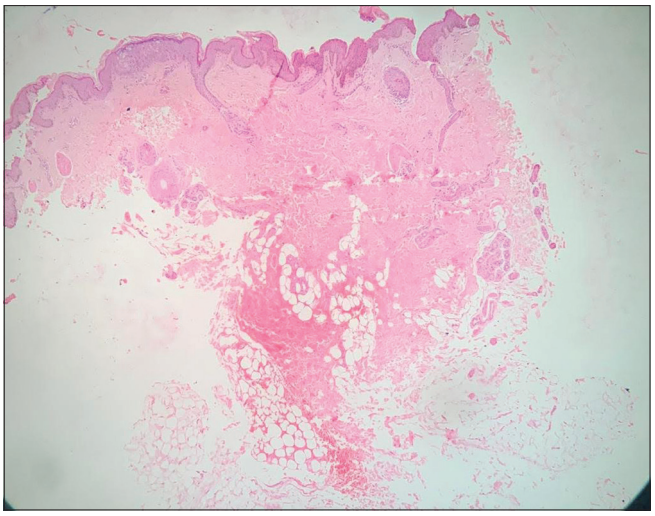

**Figure 4: Histopathology in case 2: orthokeratosis, parakeratosis, spongiosis, hypogranulosis, and perivascular lymphocytic infiltrate (H&E 10x)**


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## *Consent statement*

Complete informed consent has been taken from the parents of both cases for publication of medical information and photographs taken during the period of stay in the hospital.


## *Financial support and sponsorship*

Nil.


## *Conflict of interest statement*

There are no conflicts of interest.

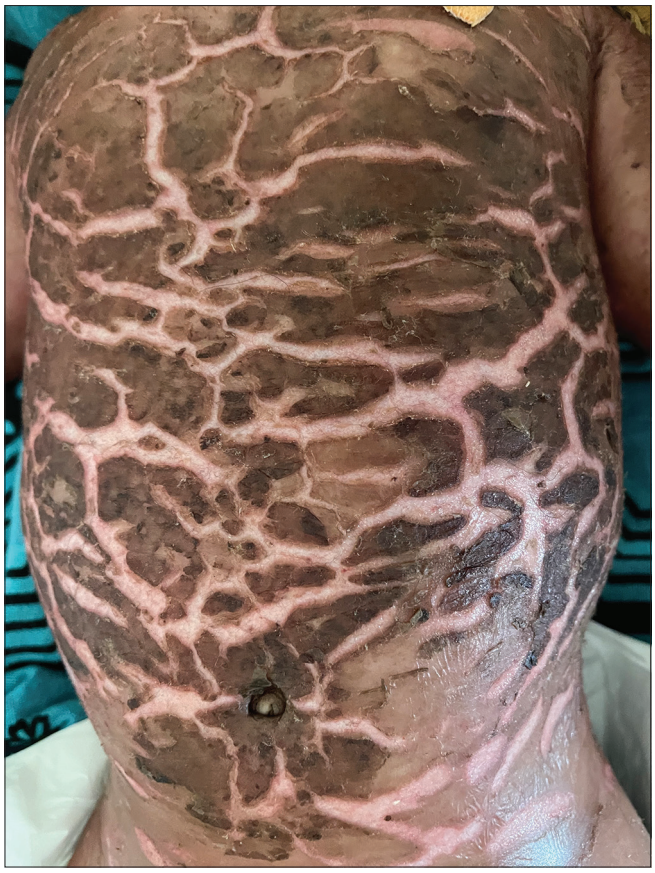

**Figure 5: Fissuring in crazy pavement pattern in case 2**

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