IF IT’S ITCHY, ITS SCABIES... NOT ALWAYS

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ABSTRACT

Scabies is commonly characterized by the presence of itchy rash but this typical symptom does not necessarily mean scabies. A female infant presented to the paediatrics department of Kuwait teaching hospital with a characteristic pruritic rash on soles suggestive of scabies. However, failure of the anti-scabies treatment, absence of positive personal and hygienic history and progression towards the deterioration of existing situation lead to the establishment of a history and clinical based diagnosis of Infantile Acropustulosis. The treatment was started accordingly and soon after starting treatment, the patient showed the signs of recovery. No doubt that scabies is comparatively more common as compared to infantile acropustulosis but yet scabies must not be considered as an absolute diagnosis for a patient presenting with an itchy rash particularly on soles.

Key Words: Acropustulosis of infancy, Scabies, Infant, Rash

INTRODUCTION

An itchy rash over feet is a common manifestation of scabies in children. Scabies is a common disease with obvious clinical features. It is often confused with a comparatively rarer condition of Infantile Acropustulosis¹. The mis-diagnosis is often made due to the close similarities between the clinical features, histological findings and natural history of the two diseases². We report a similar rash in an infant who was repeatedly treated as scabies but in the end turned out to have an uncommon underlying diagnosis of Infantile Acropustulosis.

Infantile Acropustulosis usually has itchy vesiculopustules mainly on the distal extremities³. Typical pustular or pruritic papulovesicular lesions that are often chronic and recurrent are the characteristic features of infantile acropustulosis⁴,⁵.

However, among pustular diseases, Infantile acropustulosis is not very common⁶. The disease was first explained in the year 1979 as vesiculopustular pruritic rash on soles and palms⁷,⁸. Infantile acropustulosis affects children during initial few months after birth.⁶ It is an uncommon presentation but yet it is not rare.

The duration of persistence of infantile acropustulosis is about two years⁹-¹⁰. The course of disease is also having association with weather changes as it gets comparatively more severe and harder to treat during summers¹¹.

Although infantile acropustulosis responds well to sulphones like dapsone¹² but due to its potential side effects, the exact treatment still remains controversial¹³. Topical steroid of moderate to high potency and oral antihistamine are the commonly used therapeutic agents¹⁴.

Infantile acropustulosis may clears spontaneously but also often relapses in succeeding few weeks⁶.

In paediatric scabies, one of the prominent features is the presence of generalized pruritic rash with nocturnal predominance¹⁵. The common sites that are involved in scabies include wrists, umbilicus, finger webs, nipples, axillae, areolae, buttocks and genitalia. The eruptions are usually more widespread in children as compared to adults and includes the areas of trunk, scalp and even face². Scabies is often associated with erythematous papules on the region of trunk¹⁶. However in case of adults, usually the face, head and palms are spared¹⁷.

Presence of burrows is one of the pathognomonic signs of paediatric scabies. These burrows are mostly present on genitalia, elbows, flexor compartment of wrists and inter-digital spaces of hand¹⁸. In spite of the fact that burrows are considered to be specific for scabies, in exceptional cases burrows can be either few in numbers or completely absent¹⁵. Burrow ink test is often performed when burrows are not visible to naked eye¹⁹,²⁰. The diagnosis is confirmed by identifying the mite, its scybala or eggs. For identification of mite or its products, direct microscopy of skin scrapings is performed²⁰.
In case of infants and children conditions including infantile acropustulosis, syphilis, seborrheic dermatitis, linear IgA bullous dermatosis, herpes gestationis, folliculitis and vesicular pemphigoid may need to be considered in the differential diagnosis of scabies\textsuperscript{21,22}.

One of the major reasons for the treatment failure is the non-adherence to the recommended treatment guidelines and protocols. However, treatment failure can also occur as a result of mite resistance against any specific scabicide\textsuperscript{22}.

**CASE REPORT**

An 8 months old girl was seen in paediatrics outpatient department (OPD) with the history of rash over her feet. According to the parents it started 2 months back. It initially appeared as small spots on both her soles which later progressed to blisters and eventually ruptured and disappeared. The whole episode lasted about a week to 10 days. The rash was very itchy and made her irritable. She was unable to sleep because of the itch. It remained confined to the feet only and there were no spread to any other part of the body. The rash resolved only to reappear after a couple of weeks and these patterns of occurrence continued till the time of consultation in our department.

The parents have been to many doctors and have multiple courses of anti-scabies treatment in the form of 5% permethrin cream and lotion, with no success. There was no significant past or birth history reported. She was not taking any regular medications. There were no known allergies and she was up-to-date with her immunization. She was the only child of her parents and there was no consanguinity. Her parents denied any rash or itch themselves or any other family member at home, though they had anti-scabies treatment on more than few occasion as advised by the doctors. They had also taken extensive additional measures including cleaning, washing and putting their belonging to sunlight as anti-scabies treatment without any positive result.

Examination of the child revealed an unsettled little girl. Her growth and development was satisfactory and her vitals were stable. There was rash on both the soles of her feet. The rash included papules, pustules and vesicular lesions (Figure 1). Some of these lesions later ruptured leaving raw areas (Figure 2). It was obviously itchy with scratch marks. There were no other significant systemic findings.

Based on the history and examination, a clinical diagnosis of infantile acropustulosis was made. The diagnosis and the benign nature of this condition were explained to her parents. Treatment option including the possible use of dapsone was discussed and a trial of local steroid cream was agreed. Follow-up was arranged and a significant improvement was observed over next couple of months with reduction in the numbers of episodes followed by complete resolution of rash in the next 8 months. Considering the improvement with local steroid, innocent nature of the illness and potential toxic effects of dapsone, its use was not considered in this case.

**Figure 1:** Rash on the sole with pustules and vesicular lesions

**Figure 2:** Progression of rash after few days showing ruptured vesicles leaving raw areas
DISCUSSION

Infantile Acropustulosis consists of skin rash mainly on palms and soles. The rash appears as papules which then evolves to vesicles and pustules. The rash has a recurrence pattern and is extremely itchy. The episode of eruption happens every 14 to 21 days and lasts for a few days to two weeks. The frequency of these episodic rash decreases with time. The exact etiology of infantile acropustulosis is unknown however; a relationship of infantile acropustulosis with scabies has been reported in studies by Prendiville and Mancini. One of the studies conducted in Paris reports three cases of vesiculo-pustules which remain persisted for almost an year after treatment of Scabies.

The clinical cases reported by Gupta, Elpern and Bjonberg reveals that infantile acropustulosis occurred after preceding scabies. However, another study conducted in Taiwan by Shai-Tai reports infantile Acropustulosis without any previous history of scabies.

In a case report published by Lee et al, a child developed infantile acropustulosis after her treatment for scabies.

A case of infantile acropustulosis reported by Marcus in Germany resolved with the application of topical corticosteroids to the patient. However the treatment was performed under damp conditions and special wet tubular bandages were used to control the disease. Similarly, Higuchi T et al reported successful treatment of Infantile Acropustulosis with topical maxacalcitol.

CONCLUSION

Infantile Acropustulosis should be kept in mind as one of the differential diagnosis in children with itchy rash over palms and soles, although scabies is quite common in paediatric patients. Though Infantile Acropustulosis is not a serious illness, there is significant morbidity attached to it in the form of itch, difficulty in sleep, scratching, superimposed bacterial infection and parental anxiety. Therefore a correct diagnosis, explanation and supportive treatment to help with symptoms of this condition are required. This will also avoid the child and family from the unnecessary often repeated and at time exhaustive treatment of scabies.

REFERENCES

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