

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

Saffi Ullah¹, Muhammad Salman Haider Qureshi², Saima Ali³, Imtiaz Khan⁴

^{1,3,4} Kuwait Teaching Hospital, KPK - Pakistan.

² Peshawar Medical College - Pakistan.

Address for correspondence:
Dr. Saffi Ullah

Assistant Professor, Department of Paediatrics, Kuwait Teaching Hospital, Peshawar - Pakistan.

E-mail: pmc.salmanqureshi@gmail.com

Date Received:

June 24, 2015

Date Revised:

August 8, 2015

Date Accepted:

November 15, 2015

ABSTRACT

Scabies is commonly characterized by the presence of itchy rash but this typical symptom does not necessarily always 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

This case report may be cited as: Ullah S, Qureshi MSH, Ali S, Khan I. If it's itchy, its scabies... not always. *J Postgrad Med Inst* 2015; 29(3): 199-202.

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 acropustulosis^{4,5}.

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 palms^{7,8}. Infantile acropustulosis affects children during initial few months after birth. It is an un-common presentation but yet it is not rare.

The duration of persistence of infantile acropustulosis is about two years^{9,10}. 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 dapson¹² 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 clear 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 wide spread 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 eye^{19,20}. 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^{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 scabicide²².

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 unknown¹¹ however; a relationship of infantile acropustulosis with scabies has been reported in studies by Prendiville²³ and Mancini²⁴. One of the studies conducted in Paris reports three cases of vesiculo-pustules which remain persisted for almost an year after treatment of Scabies¹.

The clinical cases reported by Gupta²⁵, Elpern²⁶ and Bjonberg²⁷ 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 scabies².

In a case report published by Lee et al, a child developed infantile acropustulosis after her treatment for scabies³.

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 disease⁶. Similarly, Higuchi T et al reported successful treatment of Infantile Acropustulosis with topical maxacalcitol¹¹.

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

1. Nguyen J, Strobel M, Arnaud JP, Sibille G, Chabanne A, Lacavé J. Infantile acropustulosis: unusual manifestation of scabies in the infant? *Ann Pediatr (Paris)* 1991; 38:479-83.
2. Liu S, Chen S, Ho J. Infantile acropustulosis associated with scabies. *Dermatol Sinica* 1992; 10:247-53.
3. Lee C, Lee J, Park H, Lee J, Cho B. A case of infantile acropustulosis developed after treatment of scabies. *Korean J Dermatol* 2002; 40:212-4.
4. Vignon-Pennamen M-D, Wallach D. Infantile acropustulosis. *Dermatol* 1986; 122: 1155-60.
5. Duvanel T, Harms M. Infantile Akropustulose. *Hautarzt* 1988; 39: 1-4.
6. Dissemmond, Joachim, Schultewolter T, Goos M. Infantile acropustulosis is successfully controlled with topical corticosteroids under damp tubular retention bandages. *Acta Derm Venereol* 2001; 81:140-1
7. Jarratt M, Ramsdell W. Infantile acropustulosis. *Arch Dermatol* 1979; 115: 834-6.
8. Kahn G, Rywlin AM. Acropustulosis of infancy. *Arch Dermatol*, 1979; 115: 831-3.
9. Humcau S, Bureau B, Litoux P. Infantile acropustulosis in six migrant children. *Pediatr Dermatol* 1995;12:211-4.
10. Vignon P, Wallach D. Infantile acropustulosis. *Arch Dermatol*, 1986; 122: 1155-60.
11. Higuchi T, Kimura M, Yoshida M. Infantile Acropustulosis Treated Successfully With Topical Maxacalcitol. *Acta Dermatol Venereol* 2011; 91:363-4.
12. Kahn G, Rywlin AM. Acropustulosis of infancy. *Arch Dermatol* 1979; 115: 831-3.
13. Findlay R. Infantile Acropustulosis. *Arch Pediatr Adolesc Med* 1983; 137:455.
14. Braun M, Stachowitz S, Schnopp C, Ring J, Abeck D. Infantile acropustulosis successfully controlled with topical corticosteroids under damp tubular retention bandages. *Acta Derm Venereol* 2001; 81: 140-1.
15. Angel TA, Nigro J, Levy ML. Infestations in the pediatric patient. *Pediatr Clin North Am* 2000; 47:921-35
16. Potts J. Eradication of ectoparasites in children: how to treat infestations of lice, scabies, and chiggers. *J Postgrad Med Inst* 2001; 10:57-9, 63-4.
17. Arya V, Micheal, Molinaro, Sebastian, Maewski, et al. Pediatric Scabies. *Pediatr Dermatol* 2003; 71:193-6.
18. Sterling GB, Janniger CK, Kihiczak G. Scabies. *Am Fam Physician* 1992; 46:1237-41.
19. Rasmussen JE. Scab *Pediatr Rev* 1994; 15:110-4.
20. Wolf R, Avigad J, Brenner S. Scabies: the diagnosis of atypical cases. *Cutis* 1995; 55:370-1.
21. Camassa F, Fania M, Ditano G, Silvestris AM, Lomuto M. Neonatal scabies. *Cutis* 1995; 56:210-2.
22. Chosidow O. Scabies and pediculosis. *Lancet* 2000; 355:819-26.
23. Mancini AJ, Frieden IJ, Paller AS. Infantile acropustulosis revised: history of scabies and response to topical corti-

- costeroids. *Pediatr Dermatol* 1998; 15: 337-41
24. Prendiville JS. Infantile acropustulosis – how often is it a sequela of scabies? *Pediatr Dermatol* 1995; 12: 275-6.
 25. Gupta AK, Rasmussen JE. What's new in Pediatric Dermatology. *J Am Acad Dermatol* 1988; 18: 239-59.
 26. Bjonberg A, Friis B. Persistent pustulosis in children adopted from Asia, a sequel of scabies? *Int Dermatol* 1978; 17: 69-73.
 27. Elpern DJ: Infantile acropustulosis and antecedent scabies. *J Am Acad Dermatol* 1984; 11:895.