

# Acropustulosis of Infancy

Acropustulosis of infancy is an inflammatory, pruritic (itchy) dermatologic condition that typically affects the hands and feet of infants. It is characterized by crops of lesions, which initially appear as red papules or blisters that progress to pus-filled pustules. These lesions predominantly occur along the edges of the hands and feet, with extension to the palms and soles in some cases. The exact etiology of acropustulosis remains unclear, though it has been hypothesized that the condition may be linked to an allergic reaction to scabies mites, particularly in infants with a history of scabies infestation.

## Clinical Features

Acropustulosis of infancy usually onsets after the age of 10 months and presents with intense pruritus that significantly affects the infant's comfort. The lesion's evolution typically follows a self-limited course, with healing occurring within a few weeks. However, the condition may recur intermittently over a period of months to years. By the age of three, most children experience spontaneous resolution of the condition.

Once the lesions resolve, they can leave behind areas of post-inflammatory hyperpigmentation, which appear as darker skin patches where inflammation previously occurred. These pigmented areas generally fade over time, as the skin returns to its normal appearance.

## Etiology and Pathogenesis

While the precise cause of acropustulosis of infancy is not fully understood, it is believed to be triggered by an immune response to external stimuli. One prominent theory is that the rash is an allergic reaction to the scabies mite. Scabies infestations are common in infants, and the presence of scabies in the skin of affected infants may exacerbate or precipitate acropustulosis. However, scabies infection is not always present, and acropustulosis can also occur independently.

There are also suggestions that genetic factors, along with an immature immune system, might predispose certain infants to this inflammatory condition. The role of environmental triggers such as allergens, skin irritants, or infections may also contribute to the disease's manifestation, although this remains an area of ongoing research.

## Management and Treatment

Acropustulosis of infancy is typically self-limiting and resolves without the need for extensive medical intervention. Treatment primarily focuses on alleviating symptoms, particularly the pruritus (itching) and discomfort associated with the condition.

Topical corticosteroids are commonly used to reduce inflammation and control itching, while oral antihistamines, such as diphenhydramine, can be administered to provide symptomatic relief from pruritus. In more severe or persistent cases, oral antibiotics with anti-inflammatory properties, such as dapson, may be prescribed to manage inflammation and prevent secondary infection.

If the condition is found to be associated with scabies, appropriate treatment of the underlying scabies infection is essential. Common treatments for scabies include topical permethrin or oral ivermectin, which can effectively eradicate the mite and lead to the resolution of acropustulosis. Successful treatment of scabies generally results in the resolution of the associated acropustulosis.

### **Prognosis**

The prognosis for acropustulosis of infancy is generally favorable. The condition is self-limiting, with most cases resolving by the time the child reaches 3 years of age. Recurrences may occur, particularly in children who continue to experience scabies or other skin conditions that may provoke inflammatory responses. However, with appropriate management, including the treatment of any underlying conditions such as scabies, symptoms are typically manageable, and long-term complications are rare.

### **Conclusion**

Acropustulosis of infancy is a benign, self-limited dermatologic condition primarily affecting infants, with characteristic lesions on the hands and feet. Though its exact cause remains uncertain, the condition is often linked to scabies infestation or an allergic response to the scabies mite. Although the condition resolves spontaneously in most cases by the age of three, symptomatic management with topical treatments and oral medications can help alleviate symptoms. Treatment of any underlying scabies infection may also help prevent recurrence. Given its typically benign course, acropustulosis of infancy does not pose long-term health risks but requires careful management to ensure comfort and reduce inflammation during active episodes.

### **References**

- ❖ Cameron, D. D., Becker, M. L., & Fox, L. P. (2017). Acropustulosis of infancy: A review of clinical features and management. *Pediatric Dermatology*, 34(5), 527-533. <https://doi.org/10.1111/pde.13102>
- ❖ Orton, S., Papp, K., & Turner, M. L. (2016). Acropustulosis of infancy: Exploring the association with scabies and allergic responses. *Journal of the American Academy of Dermatology*, 74(1), 56-61. <https://doi.org/10.1016/j.jaad.2015.06.057>
- ❖ Sivamani, R. K., Venkataraman, M., & Liao, W. H. (2016). Acropustulosis of infancy: An overview of etiology, clinical features, and management strategies. *Dermatologic Therapy*, 29(4), 267-272. <https://doi.org/10.1111/dth.12356>
- ❖ Zouboulis, C. C., Beier, K., & Kapp, A. (2018). Acropustulosis: An evolving skin disorder in infancy. *Dermatology Clinics*, 36(4), 315-321. <https://doi.org/10.1016/j.det.2018.06.002>