

# Acrodermatitis Continua of Hallopeau with Psoriatic Arthritis

TOURAJ KHOSRAVI-HAFSHEJANI , BSc, Faculty of Medicine, University of British Columbia; YOUWEN ZHOU, MD, PhD, FRCPC, Professor, Department of Dermatology and Skin Science; JAN P. DUTZ , MD, FRCPC, Professor, Department of Dermatology and Skin Science, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada. Address correspondence to Dr. J.P. Dutz, Skin Care Center, 835 West Tenth Ave., Vancouver, British Columbia V5Z 4E8, Canada. E-mail: Jan.Dutz@vch.ca. Ethics approval was not required per institutional protocol for this case report detailing routine clinical care of a single patient. The patient gave written informed consent to publish the material. Dr. Dutz has been an advisory board member for Janssen-Ortho and Novartis (which manufactures secukinumab), and has participated in a clinical trial for Janssen-Ortho. *J Rheumatol* 2019;46:437–8; doi:10.3899/jrheum.180086

Acrodermatitis continua of Hallopeau (ACH) is a form of localized pustular psoriasis that can be associated with psoriatic arthritis (PsA)<sup>1,2</sup>.

A 53-year-old male presented with a 1-year history of fingernail and toenail dystrophy and pustules on the distal toes. Examination revealed distal onycholysis of the fingernails, as well as onycholysis and subungual hyperkeratosis of the toenails. There were scattered crusted papules (pustules) over the insteps and dorsal aspect of the distal toes (Figure 1A and inset of Figure 1B). The clinical presentation was consistent with ACH. The patient was treated with acitretin for 10 months with significant but incomplete improvement. However, the patient developed pain in the toes that impaired mobility. Examination revealed splaying of the distal phalanges with dactylitis affecting multiple digits (Figure 1B). Radiologic, bone scan, and ultrasound features were consistent with PsA. Acitretin was discontinued and secukinumab was initiated. Within 4 months, there was near complete resolution of skin and nail changes as well as relief of joint tenderness and swelling (Figure 1C).

Secukinumab inhibits interleukin (IL)-17A, a proinflammatory cytokine important in the development of psoriasis vulgaris and PsA<sup>3</sup>. IL-17A recruits inflammatory cells within

joints, resulting in synovial inflammation and cartilage destruction<sup>3</sup>. Secukinumab has been used to treat pustular psoriasis and ACH<sup>4,5</sup>. Over 2 years of secukinumab therapy, the patient has had full and sustained remission of all symptoms associated with ACH and PsA. Clinicians should be aware of the association of ACH with PsA, and the response to IL-17 inhibition.

## REFERENCES

1. Lefkir S, Slimani S, Brahim N, Ladjouze-Rezig A. Successful treatment of Acrodermatitis continua of Hallopeau associated with psoriatic arthritis with adalimumab. *Eur J Rheumatol* 2015;2:78-9.
2. Okuno H, Ogura K, Okuyama R, Itoi E. Two cases of acrodermatitis continua of Hallopeau associated with generalized arthritis. *Acta Dermatovenerol Croat* 2013;21:265-7.
3. Balato A, Scala E, Balato N, Caiazzo G, Di Caprio R, Monfrecola G, et al. Biologics that inhibit the Th17 pathway and related cytokines to treat inflammatory disorders. *Expert Opin Biol Ther* 2017;17:1363-74.
4. Muggli D, Maul JT, Anzengruber F, Fopp MW, Navarini AA. Secukinumab for acrodermatitis continua of Hallopeau. *JAMA Dermatol* 2017;153:336-7.
5. Baron JA. Acrodermatitis of Hallopeau and erosive oral mucositis successfully treated with secukinumab. *JAAD Case Rep* 2017;3:215-18.



*Figure 1.* Acrodermatitis continua of Hallopeau. A. At presentation. B. After acitretin for 10 months. The inset shows crusted papules over the dorsal third and fourth digits. C. After secukinumab for 4 months.