
Nodulocystic Acne and Hidradenitis Suppurativa Treated With Acitretin: A Case Report

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Nodulocystic acne is a dermatologic disease that can result in significant damage to the skin of the face, chest, and back. Hidradenitis suppurativa is a scarring disease of the skin that causes deep cysts and abscesses on the axillae and anogenital areas. We review a case of a patient with severe nodulocystic facial acne and hidradenitis suppurativa that was treated with 2 full courses of isotretinoin. Although the patient's condition improved, some draining cysts persisted on the face and groin. Because of the inability of isotretinoin to achieve long-term remission of the patient's condition, acitretin was considered as a possible maintenance drug. The patient was almost completely improved after 5 months' therapy with acitretin, which also was effectively used for ongoing maintenance. Acitretin may be a promising treatment for severe nodulocystic

acne and hidradenitis suppurativa, which require long-term suppression when isotretinoin fails to give long-term remission.

Nodulocystic acne is a dermatologic disease that can result in significant damage to the skin. This disease may produce scarring of the face, chest, and back, as well as significant emotional scarring. Ongoing oral antibiotics, repeated intralesional triamcinolone injections, systemic corticosteroids, and draining of the cysts may be necessary to treat the disease. Hidradenitis suppurativa is a scarring disease of the skin that causes deep cysts and abscesses on the axillae and anogenital area.¹

Isotretinoin is a first-generation retinoic acid derivative that has been used to treat both conditions by altering cellular proliferation and differentiation.²⁻⁴ Retinoids are known teratogens and should not be administered to women who are or may become pregnant. Isotretinoin also may induce severe hypertriglyceridemia or hyperostosis. In addition, isotretinoin has a controversial association with depression and reports of psychosis.^{3,5} For these

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reasons, isotretinoin is not indicated for ongoing long-term treatment. Therefore, if a patient still has severe draining lesions after completing treatment with isotretinoin, management is a difficult problem.

Acitretin, the primary metabolite of etretinate, is used to treat severe psoriasis and disorders of keratinization. A second-generation retinoic acid derivative, acitretin exerts its pharmacological effect through inhibition of epidermal growth and differentiation.⁶ Because acitretin is indicated for ongoing treatment, it may be useful for the management of nodulocystic acne and hidradenitis suppurativa that are not adequately suppressed by isotretinoin.

Case Report

A 41-year-old man presented with severe nodulocystic facial acne and hidradenitis suppurativa on the inguinal folds. The conditions were not controlled with various oral antibiotics prescribed by previous physicians. The patient was treated with 2 full courses of isotretinoin. The first course of treatment consisted of 4 months of isotretinoin at 1.4 mg/kg per day, followed by 4½ months at 2 mg/kg per day. Although some draining cysts on the patient's face and groin improved throughout treatment, they were persistent. A second course of isotretinoin at 2 mg/kg per day for 6 months yielded similar results. During treatment with isotretinoin, the patient's triglyceride levels were greater than 350 mg/dL, despite taking simvastatin 40 mg by mouth at bedtime. Adding dapsone 100 mg daily to the patient's treatment with isotretinoin did not improve his response. A pulse therapy trial of isotretinoin for one week per month also was ineffective. Between courses of isotretinoin, the patient's condition, including his triglyceride level, returned to baseline with numerous draining facial and inguinal cysts.

Because of the inability of isotretinoin to achieve long-term remission of the patient's condition, acitretin was considered as a possible maintenance drug. After 2 months of acitretin 50 mg by mouth daily, the patient's hidradenitis was completely controlled, and his acne improved to only a few inflamed nondraining facial cysts. The patient's triglyceride level remained within normal limits at 174 mg/dL. Based on the patient's weight, 85 kg, the dose was increased to 75 mg daily (a dose tolerated in premarketing trials) to see if further improvement of acne could be achieved. After one month on this dosage, the patient was completely free of inflammatory lesions on the face and groin. After 4 months at this dosage, however, alopecia and unacceptable joint pain developed. After one month off acitretin, the patient's side effects resolved. Treatment was resumed at a dose of 50 mg daily, with results similar to when

the patient was previously on this dosage, with no resumption of joint pain. Because this improvement was satisfactory to the patient, it was decided he would remain at this dosage. After 5 months of therapy, improvement continued to be satisfactory.

Comment

Both nodulocystic acne and hidradenitis suppurativa have been widely managed with short courses of isotretinoin.¹⁻⁴ However, it is an unacceptable maintenance drug for patients who are unable to obtain long-term remission of these conditions. Concerns have been expressed regarding adverse events and long-term use of isotretinoin. Acitretin has reportedly had success in the long-term outcomes in patients treated for skin disorders such as the pustular or erythrodermic types of psoriasis.^{7,8} Systemic retinoid therapy side effects such as conjunctivitis; hair loss; dry skin; and elevated levels of triglycerides, aspartate aminotransferase, alanine aminotransferase, and lactate dehydrogenase can generally be effectively managed through dosing adjustments, lipid therapy, and careful patient monitoring.^{7,8} Acitretin was used in our patient for ongoing treatment of recalcitrant nodulocystic acne and hidradenitis suppurativa. The patient was almost completely improved after 5 months of acitretin therapy. Acitretin also was effectively used for the patient's ongoing maintenance. Acitretin may be a promising treatment for severe nodulocystic acne and hidradenitis suppurativa, which requires long-term suppression when isotretinoin fails to give long-term remission.

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