

Acitretin and AIDS-related Reiter's disease

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ABSTRACT

A patient with AIDS presented with Reiter's syndrome. Arthritis and skin lesions responded poorly to non-steroidal anti-inflammatory drugs and topical corticosteroid therapy. Dramatic improvement was seen 2 weeks after acitretine was added. When Reiter's syndrome recurred 11 months later despite treatment with highly active anti-retroviral drugs and an undetectable plasmatic viral load, acitretin without NSAID or topical treatment was again administered and was rapidly effective.

Introduction

Spondyloarthropathic arthritis associated with human immunodeficiency virus (HIV) infection is frequently severe and refractory to conventional treatment with nonsteroidal anti-inflammatory drugs (NSAIDs) (1, 2). Phototherapy and potentially immunosuppressive drugs such as corticosteroids, methotrexate and cyclosporine are not recommended. Anecdotal reports and open studies suggest a beneficial role for some of the disease-modifying anti-rheumatic drugs such as hydroxychloroquine (3), gold salts (4) and in particular sulfasalazine (5-7). The retinoids etretinate and acitretin are effective non-immunosuppressive drugs for psoriasis. The efficacy of etretinate for the treatment of the skin and joint manifestations of HIV patients with Reiter's syndrome has been reported (8-10), although 2 cases of exacerbation of arthritis have also been described (2).

We report here the case of a patient with HIV-associated spondyloarthropathic arthritis and psoriasis, who was refractory to NSAID and highly active anti-retroviral drugs, but whose Reiter's syndrome was dramatically improved by a low dose of acitretine.

Case report

A 46-year-old homosexual man developed arthritis of the hips and ankles, back pain and plantar fasciitis in February 1996. Examination showed hyperkeratotic scaly lesions of one month's duration on the palms and soles and on the trunk. Dystrophic changes of the nails were noted. AIDS had been diagnosed 10 months earlier (cryptococcal menin-

gitis) and the patient was being treated with itraconazole (400 mg/d), sulfamethoxazole-trimethoprim (one tablet a day), zidovudine (500 mg/d) and didanosine (400 mg/d).

The patient's CD4 lymphocyte count was 83/ μ l. A viral load measurement was not performed. A urethral culture for Chlamydia was negative. Human lymphocyte antigen (HLA) B27 was positive. X-ray films of the sacroiliac joints and lumbar spine showed bilateral grade II sacroiliitis and erosive disease of the upper corner of the L4 vertebra. Diclofenac (150 mg/d) and indomethacin (150 mg/d) were minimally effective. Treatment of the cutaneous lesions with bethamethasone 0.1 % was of limited efficacy. Oral acitretin (25 mg/d) was started and two weeks later a dramatic improvement in the arthritis was noted. NSAIDs were stopped. At one month skin lesions could no longer be seen. Acitretin was stopped after 5 months, but a recurrence of the Reiter's syndrome took place in January 1997. At that time, the patient had been treated for 7 months with zidovudine (500 mg/d), lamivudine (300 mg/d) and zalcitabine (1200 mg/d). His CD4 lymphocyte count was 318/ μ l and no viral load was detectable. Acitretin at the same dosage as before was started, without concurrent NSAIDs, and resulted in a prompt disappearance of the symptoms after 4 weeks. Acitretin was stopped in July 1997 and no recurrence had occurred 13 months later, when the patient's CD4 lymphocyte count was 460/ μ l and a plasmatic viral load still undetectable.

Discussion

HIV-associated arthritis is much rarer in Europe and North America than in tropical areas (11). There is a definite need for controlled trials of drugs without immunosuppressive properties for this condition, especially in Africa. Anti-retroviral drugs are good candidates but zidovudine has little effect on arthritis (12). In our patients, zidovudine and didanosine failed to prevent the onset of arthritis and subsequent anti-retroviral therapy with a protease inhibitor, while efficient in controlling HIV replication, did not prevent the recurrence of the skin and joint manifestations. This suggests that HIV-associated arthritis is not directly re-

lated to HIV or to co-infection due to immunosuppression. Arthritis was observed when the patient was profoundly immunodepressed, but also after "immunorestitution" was obtained.

Sulfasalazine is a good candidate for arthritis, but is ineffective against the skin manifestations. The retinoids etretinate and acitretin, which are used to treat psoriasis, seem to be the best candidates. Acitretin has a much shorter biological half-life than etretinate, and becomes undetectable in the blood 3 to 4 weeks after discontinuing treatment (compared to as long as 2 years for etretinate). A short pilot study recently showed acitretin to be a safe and effective treatment for HIV-associated psoriasis. The two patients with arthritis included in this study improved (13).

The case described here demonstrates that a low dose of acitretin can be rapidly effective in the treatment of HIV-associated spondyloarthropathic arthritis mimicking Reiter's syndrome.

References

1. WINCHESTER R, BERNSTEIN DH, FISCHER HD, ENLOW R, SOLOMON G: The co-occurrence of Reiter's syndrome and acquired immunodeficiency. *Ann Intern Med* 1987; 106: 19-26.
2. DUVIC M, JOHNSON TM, RAPINI RP, FREESE T, BREWTON G, RIOS A: Acquired immunodeficiency syndrome-associated psoriasis and Reiter's syndrome. *Arch Dermatol* 1987; 123: 1622-32.
3. ORNSTEIN MH, SPERBER K: The anti-inflammatory and antiviral effects of hydroxychloroquine in two patients with acquired immunodeficiency syndrome and active inflammatory arthritis. *Arthritis Rheum* 1996; 39: 157-61.
4. SHAPIRO DL, MASCI JR: Treatment of HIV-associated psoriatic arthritis with oral gold. *J Rheumatol* 1996; 23: 1818-20.
5. YOUSSEF PP, BERTOUCHE JV, JONES PD: Successful treatment of human immunodeficiency virus-associated Reiter's syndrome with sulfasalazine. *Arthritis Rheum* 1992; 35: 723-4.
6. MIJYAWA M, DAVID M: Effet bénéfique de la sulfasalazine au cours d'une spondylarthropathie chez deux malades infectés par le virus de l'immunodéficience humaine (VIH). *Rev Rhum* 1993; 60: 527-9.
7. ADEBAJO AO: Sulfasalazine and human immunodeficiency virus-associated reactive arthritis: Comment on the article by Clegg et al. *Arthritis Rheum* 1996; 40: 1911.
8. BELZ J, BRENNEMAN DL, NORDLUND JJ, SOLINGER A: Successful treatment of a patient with Reiter's syndrome and acquired immunodeficiency syndrome using etretinate. *J Am Acad Dermatol* 1989; 20: 898-903.
9. WILLIAMS HC, DU VIVIER AWP: Etretinate and AIDS-related Reiter's disease. *Br J Dermatol* 1991; 124: 389-92.
10. LOUTHRENOO W: Successful treatment of severe Reiter's syndrome associated with human immunodeficiency virus infection with etretinate. Report of 2 cases. *J Rheumatol* 1993; 20: 1243-6.
11. BLANCHE P, SICARD D, SARAUX A, TAELEMAN H: Arthritis and HIV infection in Kigali, Rwanda, and Paris, France. *J Rheumatol* 1997; 24: 1449-1450.
12. DUVIC M, CRANE MM, CONANT M, MAHONEY SE, REVEILLE JD, LEHRMAN SD: Zidovudine improves psoriasis in human immunodeficiency virus-positive males. *Arch Dermatol* 1994; 130: 447-51.
13. BUCCHERI L, KATCHEN BR, KARTER AJ, COHEN SR: Acitretin therapy is effective for psoriasis associated with human immunodeficiency virus infection. *Arch Dermatol* 1997; 133: 711-15.