

Molluscum Contagiosum and Cryosurgery: Triggering Factors for Wells' Syndrome?

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Sir,

Wells' syndrome, or eosinophilic cellulitis, is an uncommon inflammatory dermatosis characterized in most cases by skin lesions resembling cellulitis and peripheral eosinophilia (1, 2). Patients rarely have systemic symptoms (3). The cutaneous manifestations include localized oedema and infiltrated erythematous plaques, infrequently studded with vesicles or bullae. Occasionally, less inflammatory lesions, such as multiple annular or circinate erythematous plaques with indurated borders, may be seen (4). The disease is nonscarring, leaving a slowly resolving hyperpigmentation. The cause of Wells' syndrome is unknown. We want to report a case where the syndrome started after a viral infection (molluscum contagiosum) treated repeatedly with cryosurgery.

CASE REPORT

A 9-year-old Greek girl was admitted to the hospital with a 10-day history of a localized slightly itchy rash. On examination there were multiple erythrovioletaceous, oedematous, infiltrated annular plaques over the inner thighs and the left axillary area. She had been treated repeatedly with cryosurgery for recurrent skin lesions of molluscum contagiosum on the same area over the previous 7 months. The last session was performed 7 days before the appearance of the new rash. There was no history or clinical indication of a precipitating event, such as an insect bite. No fever, fatigue, myalgia, arthralgia or headache were noted at any time. Her past medical history was unremarkable.

Laboratory tests revealed a hematocrit of 36.2%, a WBC of $12200/\text{mm}^3$ with 12% eosinophils and an erythrocyte sedimentation rate of 26 mm/h. The results of the following tests were either negative or within normal limits: chemistry profile, urinalysis, serum protein electrophoresis, rheumatoid factor, serum IgE levels, cryoglobulins, cold agglutinins, hepatitis B and C

profile, monospot, *B. burgdorferi* serology, ANA, CH₅₀, examination of feces for ova and parasites, bone marrow aspiration, chest X-ray, abdominal ultrasound. Direct immunofluorescence from lesional skin was negative. A biopsy specimen from a plaque on the thigh revealed an acanthotic epidermis, a densely infiltrated dermis mainly by eosinophils but also by histiocytes and lymphocytes and collagen bundles encrusted with abundant eosinophilic granules characteristic of "flame figures". Based on the clinical findings, an average dose of prednisolone ($1 \text{ mg kg}^{-1} \text{ day}^{-1}$) was administered. Two months after treatment the number of eosinophils returned to normal and the skin lesions disappeared leaving slight hyperpigmentation. The patient remains asymptomatic after a 26-month follow-up.

DISCUSSION

Wells' syndrome has been described mainly in adults. Only 19 childhood cases have been reported, 14 of which occurred in boys. The age range has been 3 weeks to 14 years, with a mean age of 6.3 years. Congenital forms of the disease are rare (5). The diagnosis of Wells' syndrome is based on typical clinical features in combination with histopathological findings (6). These include oedema of the dermis, a perivascular and interstitial infiltrate of eosinophils and histiocytes, with or without giant cells, and the so-called "flame figures" formed by a core of altered collagen surrounded by eosinophils and histiocytes. The above-mentioned histological features are characteristic but not pathognomonic of Wells' syndrome.

Associated disorders and potential precipitating events in childhood include insect bites (7), onchocerciasis (8), varicella (6), mumps (2), drug reaction (1, 2, 6), myeloproliferative disorders (9), atopic diathesis (2), fungal infection (2) and erysipelas treated with penicillin (2). However, approximately half of the reported childhood cases had no identifiable precipitating factor.

Concerning our patient, skin lesions of molluscum contagiosum treated with cryosurgery preceded those of Wells' syndrome. Although viral infections and surgery are reported as precipitating agents in Wells' syndrome, our patient is the first in whom a viral dermatosis (molluscum contagiosum) in combination, possibly, to cryosurgery is involved in Wells' syndrome pathogenetic procedure. The dermatosis in this child may have developed as an aberrant immune response (6, 10) either to molluscum contagiosum virus or to cryosurgery.

Systemic steroids appear to be the first-line treatment in Wells' syndrome. In our patient there was a prompt response to oral prednisolone. Spontaneous recovery occurred in 8 of 14 childhood cases in which follow-up is reported (3, 5, 9, 11, 12).

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