

Reactivation of Healed Primary Syphilitic Ulcer: A Manifestation of Febrile Herxheimer Reaction in Secondary Syphilis

Sir,

Febrile Herxheimer reaction frequently occurs when patients with early syphilis are treated with treponemicidal drugs (1). About 95% of patients with early secondary syphilis experience the reaction after treatment with penicillin (2). Patients usually develop fever, chills, malaise, arthralgia, nausea and vomiting. There may be an exacerbation of cutaneous lesions. Several mechanisms have been postulated for the pathogenesis of febrile Herxheimer reaction. It has been attributed to the release of treponemal breakdown substances like endotoxins. There is also some experimental evidence to support the speculation that cell-mediated immunity may play an important role. We here report a patient with secondary syphilis, who developed reactivation of a healed primary syphilitic lesion after treatment with parenteral benzathine penicillin. This phenomenon has not been reported earlier.

CASE REPORT

A 16-year-old unmarried man presented with a 4-week history of several asymptomatic, erythematous lesions on the trunk and upper thighs. He gave a history of a single unprotected heterosexual exposure with a professional 4 months earlier. Two weeks after the sexual contact, the patient developed an asymptomatic papule on the coronal sulcus; this ulcerated in a few days. The ulcer healed spontaneously in 2-3 weeks, to leave behind a hypopigmented scar. The patient had been asymptomatic for 8-9 weeks when he noticed the present rash. The patient did not give a history of any constitutional symptoms. He had not received any treatment for this.

Physical examination revealed a small, non-tender, discrete lymphadenopathy in the cervical, axillary, epitrochlear and inguinal regions. He had several asymptomatic erythematous papulosquamous, annular lesions on the trunk and upper thighs. In addition he had eroded papules in the perianal region. There were no oral or palmoplantar lesions. There was a single hypopigmented atrophic scar on the coronal sulcus.

The patient's routine investigations were within normal limits. His serology for syphilis (VDRL) was reactive 1:64. Dark-field examina-

tion performed from the perianal lesion was positive for *Treponema pallidum*. A biopsy from the papulosquamous lesion was consistent with a diagnosis of secondary syphilis. The patient was given 2.4 million units of parenteral benzathine penicillin after ruling out sensitivity to the drug. Within 3 h he developed fever, which reached a peak of 39.4°C 9 h after the dose of penicillin and lasted for 48 h. He also complained of giddiness and nausea. However, he did not develop any new cutaneous lesions.

About 6 h after treatment with penicillin, the patient noticed swelling at the site of the healed primary lesion. This ulcerated after 2 days. At that time there was a single indurated ulcer on the coronal sulcus (Fig. 1). Dark-field examination performed from the ulcerated genital lesion was negative. The patient refused biopsy from the ulcer. The ulcer healed spontaneously within a fortnight, without any further treatment.

DISCUSSION

In febrile Herxheimer reaction, there may be an exacerbation of the skin lesions in the form of either appearance of new



Fig. 1. Single indurated ulcer at the site of a healed primary syphilitic ulcer.

lesions or/and erythema and edema of the pre-existing lesions, but this manifestation is decidedly infrequent (4, 5). Our patient developed a moderately severe febrile Herxheimer reaction but did not have exacerbation of cutaneous lesions. It is unique that he developed an indurated ulcer at the site of the healed primary lesion.

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