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QUIZ SECTION

Widespread Crusted Skin Ulcerations in a Man with Type II Diabetes: A Quiz

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A 35-year-old Chinese man presented with asymptomatic crusted lesions over the body for 30 days (Fig. 1A). The eruptions started as papules on the face, extremities, and trunk. He had no fever, arthralgia or abdominal pain. He self-applied topical antifungal and antibiotic ointment for 2 weeks without success. He had no history of similar episode in the past and family history was insignificant. He complained of weight loss, lethargy and frequent nocturia for one year. He was type II diabetic on insulin treatment.

Clinical examination was normal except swelling of bilateral inguinal lymph nodes, and crusted lesions with scattered bean-size pustules. A tender ulcer was seen on the penis (Fig. 1B).

A biopsy specimen from the arm showed a central ulcer and psoriasiform hyperplasia around. In the dermis there was deep perivascular infiltration of dense neutrophil, lymphocytes, plasma cells and histiocytes. (Fig. 1C). Blood cell count, urine examination, serum immunoglobulins, CD4/CD8 count, ANCA, HIV serotest, cultures of Gram-negative diplococcus, fungi, bacteria, mycobacterium tuberculosis, and dark field microscopic of smear from the penis ulcer were normal or negative. His ESR was 50 mm/h, normal < 10).

What is your diagnosis? See next page for answer.

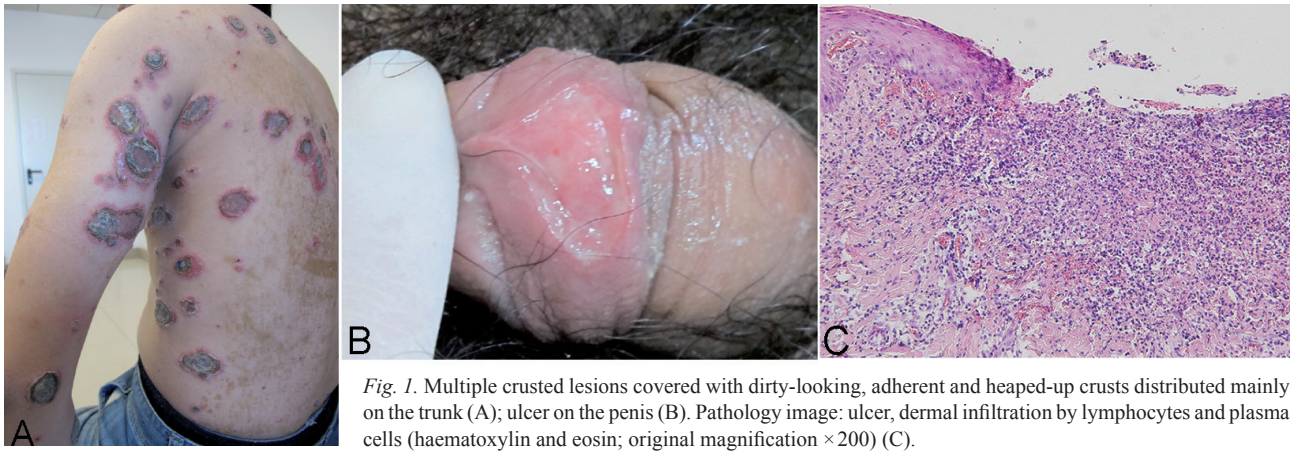

Fig. 1. Multiple crusted lesions covered with dirty-looking, adherent and heaped-up crusts distributed mainly on the trunk (A); ulcer on the penis (B). Pathology image: ulcer, dermal infiltration by lymphocytes and plasma cells (haematoxylin and eosin; original magnification × 200) (C).

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ANSWERS TO QUIZ

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***Diagnosis*: Malignant syphilis**

His serum treponema pallidum haemagglutination test (TPHA) was positive and rapid plasma reagin (RPR) test was at the titre of 1:256. During the past year, he had multiple unprotected heterosexual intercourses with commercial sex workers, but he did not experience other symptoms expect penis ulcer tender.

Based on the clinical manifestation, histological and laboratory findings, the diagnoses of malignant syphilis and type II diabetes were confirmed. The patient was treated with deep intramuscular injection of benzathine penicillin 2.4 million units once a week for 3 weeks. In order to prevent Jarisch-Herxheimer reaction, he was treated with oral prednisone 40 mg one day before injection of benzathine penicillin. Within one month, the skin lesions healed completely. His RPR titre dropped to 1:4 3 months after treatment. At 6-month follow-up, there was no relapse of disease and anti-HIV antibody was negative. His blood sugar was well controlled with insulin under the guidance of the endocrinologist.

The key clinical feature of this case is the association of multiple uncommon skin lesions with weight loss and lethargy occurring after unprotected sexual contact.

Malignant syphilis is an explosive, widespread form of secondary syphilis. The disease is characterised by the prodrome of fever, arthralgia, myalgia, headache and photophobia (1). Skin lesions start as papules and evolve into pustules; within a few days the lesion centre undergoes necrosis, resulting in sharply marginated ulcers with an erythematous halo and a clean-looking floor (2). The ulcers are covered with layers of crusts resembling oyster shells. The size of the ulcers varies from a few millimetres to several centimeters (3). The number of lesions have been reported to be as many as 325 (4). They can be grotesque, imparting the appearance of leonine facies (5).

The cutaneous lesions can cause pruritus or pain and can be accompanied by intense generalised disease, eye involvement, fever, enlarged lymph nodes, myalgia, hepatosplenomegaly and hepatitis, etc. (2).

Malignant syphilis has been associated with several conditions. So far the majority of published cases of malignant syphilis are in HIV-positive patients (6). Although there are no exact data on the incidence of malignant syphilis among HIV positive patients, a multicentre retrospective study of 11,368 HIV-infected patients in Germany found that 149 (1.3%) patients were concurrently infected with syphilis, and 11 (7.3%) of those patients had malignant syphilis (7). However, cases in malnutrition, ethylismus, pregnancy and diabetes have also been documented (8, 9).

The differential diagnosis includes deep cutaneous mycosis (e.g. blastomycosis, cutaneous cryptococcosis, phaeohyphomycosis), cutaneous tuberculosis, atypical mycobacterial infection, cutaneous leishmaniasis, pyoderma gangrenosum, Wegener's granulomatosis, and cutaneous lymphoma (e.g. mycosis fungoides).

Malignant syphilis, despite its name, usually responds very well and rapidly to proper therapy (10).

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