LETTER

Secondary syphilis mimicking warts in an HIV-positive patient

A 35-year-old Japanese man visited our hospital with a 2-year history of skin lesions affecting his palms and soles. The palmar lesions comprised diffuse papillomatous hyperkeratotic and macerative reddish skin eruptions (fig 1A). In addition, he had warty-like plaques of 4.5 cm in diameter on his right sole (fig 1B). Upon his initial visit, he did not report any other symptoms such as chills or malaise. These unusual and severe hyperkeratotic lesions did not fit any typical known skin disease such as verruca, Reiter's syndrome and so on.

Skin biopsy specimens of the hyperkeratotic lesions on the palm and sole showed marked exophytic papillomatous acanthosis with a few koilocytotic cells. In the upper dermis, a dense inflammatory infiltrate containing large numbers of plasma cells was present.

Clinical and histopathological findings led us to suspect syphilis. The serological test showed high reactivity of the rapid plasma reagin test for syphilis at a titre of 1 : 1024 and a positive *Treponema pallidum* haemagglutination test (2450TU). Around the same time, numerous spirochaetes were detected from his swollen tonsils with Indian ink staining of the smear.

In addition, we suspected that he was in an immunodeficient state because of his severe clinical features of syphilis, therefore we performed a supplementary study. In the following results, a viral serological test revealed that he had detectable antibodies to HIV-1 (HIV viral load 11 000 copies/ml). The CD4 cell count (479 cells/mm^3) was slightly decreased.

After 3 weeks of penicillin antibiotic treatment, his skin eruptions and swollen tonsils had dramatically improved (fig 1C, D). Furthermore, we could not detect any evidence suggesting human papillomavirus infection using a method that can detect a broad range of DNA from multiple human papillomavirus types in both the palm and sole lesions.[1] Finally, we diagnosed his hyperkeratotic skin lesions and enlarged tonsils as secondary syphilis because of the good response to the antibiotic treatment and pathological and serological findings. Furthermore, we suspected his immunodeficiency from the atypical skin eruptions and reached a diagnosis of HIV infection.

Infections with unusual clinical features are frequently observed in patients with HIV.[2] In recent years, some cases of syphilis in HIV patients with various manifestations and a rapidly progressive course have been reported, which have led to the hypothesis that HIV superinfection modifies the clinical presentation and disease course of syphilis.[2 3]

Secondary syphilis has various clinical forms, such as macular syphilide, papular syphilide, pustular ulcerative syphilide and syphilitic alopecia.[4] In papular syphilide, there are several subtypes including syphilitic psoriasis and condyloma latum, which may present as slightly hyperkeratotic lesions. It has been reported that a very small number of syphilis patients manifest severe palmoplantar keratoderma such as that seen in Reiter's syndrome.[5 6]

As this patient exhibited such significant and atypical clinical features, we were able to diagnose HIV infection. This case emphasises the importance of suspecting and checking for HIV infection after a rare clinical presentation of secondary syphilis, such as these severe wart-like hyperkeratotic lesions.

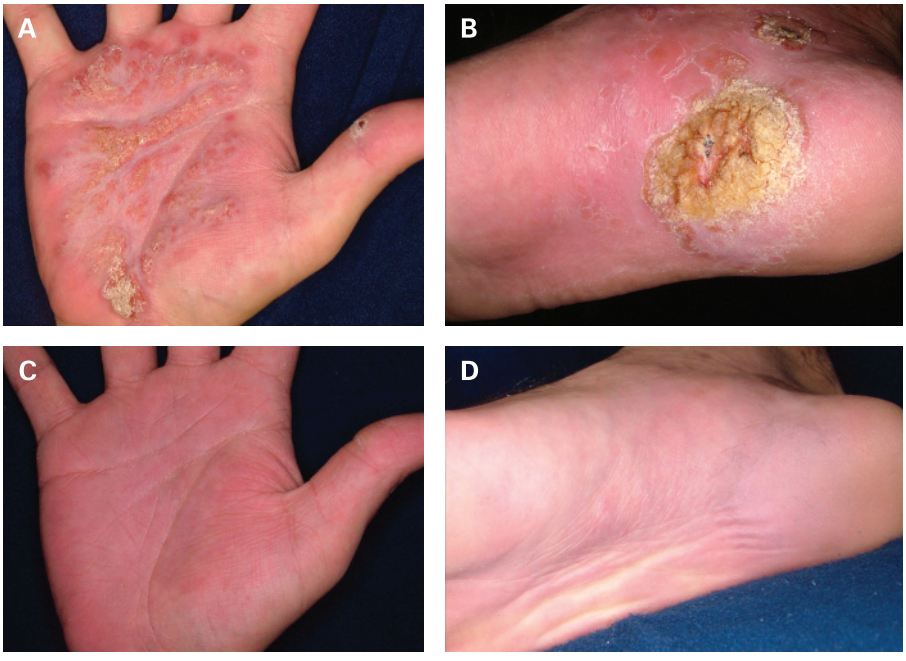

Figure 1 Skin changes on the right palm (A) and sole (B) on the initial visit. After penicillin antibiotic treatment, the skin lesions had completely disappeared (C, D).

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Competing interests: None.

Ethics approval: Ethics approval was obtained.

Patient consent: Obtained.

Provenance and peer review: Not commissioned; externally peer reviewed.

Accepted 24 February 2009

Sex Transm Infect 2009;**85**:484.
doi:10.1136/sti.2008.035626

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