Syphilitic condylomata lata mimicking anogenital warts

F G Bruins dermatologist-venereologist, F J A van Deudekom resident in internal medicine, H J C de Vries dermatologist-venereologist

1 Clinic for Dermatology, DermaPark, Uden, Netherlands; 2 Department of Internal Medicine, Kennemer Gasthuis, Haarlem, Netherlands; 3 Department of Dermatology, Academic Medical Centre, University of Amsterdam, 1100 DD Amsterdam, Netherlands; 4 STI Outpatient Clinic, Public Health Service Amsterdam, Amsterdam, Netherlands; 5 Centre for Infection and Immunity Amsterdam (CINIMA), Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands

A 41 year old man who has sex with men visited our dermatology outpatient clinic with a three month history of non-painful anal papules. He reported protected anal contact with multiple (anonymous) male partners. Physical examination showed perianal flesh coloured papules with a verrucous surface (fig 1). One papule showed partial ulceration. Our differential diagnosis was between human papillomavirus (HPV) associated genital warts and condylomata lata, a cutaneous manifestation seen in secondary syphilis. On histopathological examination of a lesional biopsy, immunostaining for Treponema pallidum showed a dense plasma-cellular infiltrate and numerous spirochetes. An HPV specific nucleic acid amplification test did not detect viral DNA in the biopsy. The diagnosis was confirmed by serological testing with a T pallidum specific enzyme immunoassay and the Venereal Disease Research Laboratory (VDRL) test; HIV-1 and HIV-2 serology were both negative. He was given intramuscular injections of 2.4×10^6 IU benzathine benzylpenicillin, and the lesions had disappeared completely at a follow-up visit.

What are condylomata lata?

These are one of the cutaneous signs of secondary syphilis. They reside in skin folds, such as those seen in the inguinal, perianal, and perivaginal regions and appear as flat papules with a moist, cauliflower-like or velvety surface. Moreover, they contain numerous spirochetes and are highly infectious (fig 2A). They can mimic anogenital warts (condylomata acuminata), which are associated with HPV infection, and are characterised by verrucous or papilliform, pink or skin coloured papules (fig 2B).

How common are they?

Between 2012 and 2013 the overall incidence of infectious syphilis in England increased by 9%—3249 cases were reported. In genitourinary medicine clinics, syphilis is mainly seen in men who have sex with men, with 81% (2393/2970) of cases in men being in this group.

Why are they missed?

Because of the painless nature of condylomata lata patients can easily miss these lesions, especially if they are located at an internal site such as the anus, vagina, or mouth. Moreover, they can easily be mistaken by doctors for another dermatological condition such as anogenital warts (fig 2B), bowenoid papulosis, HPV induced anal intraepithelial neoplasia, or skin tags.

Why does this matter?

Misdiagnosis delays adequate treatment and results in ongoing transmission to sex partners. Syphilis is treated completely differently from genital warts. If untreated, syphilis can have irreversible consequences, including neurosyphilis (such as syphilitic meningitis and cerebrovascular disease) and cardiovascular disease (such as aortic valve destruction).

How are they diagnosed?

Clinical

Condylomata lata are characteristic of secondary syphilis. By contrast, the primary stage of syphilis is characterised by a small painless, indurated ulcer, typically with rolled edges, which is accompanied by regional lymphadenopathy. Secondary syphilis...
can present with a variety of symptoms, most often a maculopapular rash, but also alopecia, leucoplakic or erythematous lesions on oral mucous membranes, and perianal or perivaginal condylomata lata.

**Investigations**

A clinical suspicion of syphilis is initially confirmed by serology, using an anti-treponemal serological assay (for example, the *T pallidum* enzyme immunoassay, which is usually reported as positive or negative or as a semi quantitative index; or the *T pallidum* haemagglutination assay (TPHA)) and an anticardiolipin test (such as the VDRL test, reported as titre). In primary syphilis, serological tests can be falsely negative in the window phase, so serology may need to be re-evaluated after several weeks; the TPHA and VDRL tests have 70.4% and 74.9% sensitivity, respectively. In secondary syphilis serological testing is highly sensitive—98.6% and 97.4% for TPHA and VDRL tests, respectively; VDRL also usually shows a high titre (>1:16).

In specialist clinics, dark field microscopy may be used to diagnose ulcerative primary stage lesions and condylomata lata, by visualising *T pallidum* in lesional exudate. This is a cheap and quick diagnostic method but requires a specialised microscope and expertise.

To differentiate syphilitic condylomata from HPV induced manifestations, such as genital warts or Bowenoid papulosis, a biopsy is needed for histopathological examination. A dense plasma cell infiltrate and numerous spirochetes visualised by immunostaining confirm condylomata lata. Numerous nucleic acid amplification tests to detect *T pallidum* have been developed in house but are not available routinely. These tests are highly specific and sensitive in the diagnosis of primary syphilis, irrespective of the serological window phase.

**How are they managed?**

It is advisable to refer patients suspected of having syphilis to a specialised setting, such as a sexual health or infectious diseases clinic, or to a (dermato-)venereologist, where additional investigations and treatment are readily available and contact tracing and follow-up can be offered.

The primary, secondary, and early latent stages of syphilis can easily be treated with a single intramuscular 2.4×10^6 IU dose of benzathine benzylpenicillin. Patients diagnosed as having syphilis should always undergo tests for other sexually transmitted diseases, including HIV and hepatitis B serology, and nucleic acid amplification testing of urine, vaginal, anorectal or pharyngeal swabs (depending on the patient’s sexual practices) for chlamydia and gonorrhoea. Furthermore, partner notification is needed to prevent transmission, although this may be a problem when sexual contacts are anonymous. Men who have sex with men who often have new or casual partners are advised to be screened for sexually transmitted infections and HIV every three months.

**Cite this as:** BMJ 2015;350:h1259

© BMJ Publishing Group Ltd 2015
Figures

Fig 1 Condylomata lata in a man with secondary stage syphilis characterised by verrucous hyperkeratotic perianal papules. The condylomata latum on top shows partial ulceration.
Fig 2 (A) Perianal condylomata lata with a typical verrucous aspect. (B) Perianal and intra-anal genital warts characterised by verrucous papules