

# What is hidden under the diagnosis of syphilis?

## A Case Report

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### Introduction:

Together with syphilis other sexually transmitted infections (STIs) related to risky sexual behaviour could be identified. Syphilis has a high probability of coinfections which share common routes of transmission and target populations. Individuals diagnosed with syphilis should undergo a full STIs assessment.<sup>1,2</sup>

### Case report:

A 32-year-old male admitted because of generalized skin rash for 1 month (Figure 1). A painless ulcer in the anus was present before the rash occurred. The anamnesis revealed that the patient was diagnosed with HIV a year ago and has been receiving antiretroviral therapy (ART). The patient's sexual male partner was diagnosed with HIV 2 years ago and syphilis 1 month ago and was prescribed targeted treatment by ART and Benzathine penicillin G to cover both STIs.

As laboratory tests for syphilis were positive (RPR 1:32, TPHA 4+), the patient was diagnosed with secondary syphilis and prescribed the first-line treatment therapy by Benzathine penicillin G 2.4 million units intramuscularly on day 1 and 7. Two months after syphilis treatment RPR titer reduced to 1:4. Screening for other classical STIs (gonorrhea, chlamydia, *Mycoplasma genitalium*) was negative. The patient was also tested for hepatitis B and C. After reactive HBV was identified (HBsAg>1000.0), a consultation of a gastroenterologist was suggested to provide the specific treatment of hepatitis B. Moreover, the Quantiferon-TB test showed a positive result, and the patient was directed to a pulmonologist for further diagnostics of tuberculosis (TB). Follow-up of this patient for syphilis will continue for up to 1 year.

### Conclusions:

Epidemiological studies show high rates of coinfection with HIV among those infected with syphilis, especially in key populations as homosexual men, where the rates of coinfection reaches up to more than one third (35%) in Europe.<sup>1,4</sup> The synergistic relationship between HIV and syphilis can have implications not only for HIV patient management, but also for clinical diagnostics, as coinfection can present with rare clinical manifestations as multiple genital chancres or overlapping of stages.<sup>2,5</sup> Also, single or complex coinfections with syphilis and HBV, HCV (both up to 15 %) <sup>6</sup>, TB (up to 10 %) <sup>7</sup> and other STIs as gonorrhea (up to 9%) <sup>8</sup> or chlamydia (up to 11%) <sup>8</sup> are common.<sup>1,2,9</sup> Due to this, a full assessment of these overlapping infections should be performed to achieve complete diagnosis and provide a complex treatment as well as appropriate prophylaxis.<sup>2,3</sup>



Figure 1. Classical generalized diffuse maculopapular rash of secondary syphilis on trunk (a, b), palms (c) and soles (d).

### References:

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