Since it was first defined, human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) has become one of the most studied infectious diseases. HIV, which is the member of lentiviruses genuine of the retrovirus group and an enveloped virus containing single-stranded RNA, has the ability to integrate viral RNA into the genetic material of host by transforming viral RNA into the double-stranded DNA using reverse transcriptase enzyme (1).

Syphilis is a sexually transmitted chronic infection, which can affect all systems and organs with different clinical stages, and *Treponema pallidum*, a member of the spirochete family, is the agent. Syphilis has led to numerous epidemics worldwide, which started in the 1990s and still ongoing with the increase of HIV-infected patients. Despite the decline in the United States and Europe, it has increased since 2000. It is noteworthy that syphilis shows high rates of coinfection with HIV and HIV-infection may alter the clinical signs of syphilis. Since these two infections can be frequently seen together, all HIV-infected patients should be tested for syphilis. In this report, a case with HIV coinfection with the secondary syphilitic skin lesions is presented.

**Case Report**

A 35-year-old male patient was referred to our clinic with papillo-squamous painless and non-pruritic rash on his left wrist. On reviewing history, it was learnt that he had begun an antiretroviral treatment comprising emtricitabine/tenofovir disoproxil fumarate tablet 1 × 1 and efavirenz tablet 1 × 1 due to HIV/hepatitis B virus (HBV) coinfection 10 days ago. In his physical examination, there were distinct, non-pruritic lesions on his upper extremities that faded when pressed. Other findings of physical examination were normal. The vital findings were as follows: Temperature 36.7°C, pulse: 94/min, and blood pressure 110/80 mmHg. In his laboratory examination, the following were detected: Hepatitis B antigen (+), hepatitis B surface antibody (−),
anti-hepatitis C antibody (−), and anti-hepatitis A virus immunoglobulin G (+). CD4+ T-lymphocyte count of the patient was 111 cells/mm³, polymerase chain reaction (PCR) HIV-RNA: 62,600 copies/mL, PCR HBV DNA 182153306558 copies/mL, WBC 7300/mm³, thrombocytes 242,000/mm³, hemoglobin 14.3 g/dL, aspartate aminotransferase 30 IU/L, alanine aminotransferase 34 IU/L, alkaline phosphatase 135 IU/L, and alpha-feto-protein 2.4 ng/ml.

The examination of the patient’s lesions led to the diagnosis of secondary phase syphilis. The test results of the patient revealed venereal disease research laboratory (VDRL) (+) and T. pallidum hemagglutination test (TPHA) positive with a titer of 1/2560. The rashes along with serological positivity were found to be coherent with the second stage of syphilis. Three doses of intramuscular benzathine penicillin G 2.4 million/U treatment was planned for the patient, but after the development of penicillin allergies, doxycycline 100 mg 2 × 1 was started. The lesions regressed on the 4th day of treatment. The appearance of the lesions before and on the 14th day of the treatment is seen in Figures 1 and 2. The follow-up and treatment of the patient continue.

Discussion

In our country, HIV/AIDS increases in recent years. According to the Ministry of Health until June 2013, a total of 6802 HIV-positive cases have been reported including 1096 AIDS. It is known that skin diseases are more often than the general population in HIV/AIDS patients, but its true frequency in Turkish patients is not known (4,5).

Syphilis can manifest in many different clinical findings. In the primary stage, chancre is seen as the classic lesion. The secondary stage is characterized by macular, maculopapular, papular, or pustular lesions (6). The coinfection of HIV and syphilis is common and affects a similar group of patients. HIV testing should be offered to all patients presenting with syphilis, and all HIV-positive patients should be regularly screened for syphilis. Syphilis can show atypical lesions in HIV-infected patients; a secondary infection may progress more aggressive in these patients and neurological involvement, ocular involvement may be more common. The presence of genital ulcers in individuals with syphilis facilitates HIV transmission. Therefore, the treatment of syphilis can assist in reducing HIV infection (7,8).

VDRL test is used as a screening test for the diagnosis of syphilis. However, it has been reported that the results of VDRL showed differences in people infected with HIV. It has been reported in the studies that VDRL titer higher than expected and the false positive results can be seen and also negative VDRL result may not exclude syphilis in HIV-infected patients. The fluorescent treponemal antibody absorption test or TPHA with VDRL are required for diagnosis (9).

Abdul Wahab et al. reported three HIV-infected cases with primary, and secondary syphilis lesions and uveitis (10). Of these patients, two were 24 years old and the other was 25 years old. In a case-control study, Paz-Bailey et al. found that HIV prevalence was significantly higher in patients with syphilis (48%) compared to the control group (15%) (11).

The presence of HIV coinfection does not alter the treatment regime recommended for syphilis. Penicillin is the first choice and doxycycline or tetracycline is used in patients with penicillin allergy (12,13). Buchacz et al. reported that new syphilis infection increases HIV
viral load and decreases CD4 cell counts in HIV-infected patients (14). On the other hand, antibiotic therapy for syphilis decreases HIV viral load and increases CD4 cell counts (15). The serological response rates in penicillin and doxycycline-treated patients were the same (15). We obtained a good response in our patient with doxycycline treatment.

HIV and syphilis coinfection is commonly seen and affects similar patient groups. The patient with sexually acquired HIV-infection should be screened for other sexually transmitted diseases; this will help the appropriate management of patients with sexually acquired infections and HIV coinfection. With the increased HIV/AIDS incidence in our country and keeping in mind the similar transmission methods of these two infections, coinfection should be considered. Furthermore, HIV tests should be recommended to all patients that present with syphilis, as early diagnosis and treatment will decrease the risk of HIV transmission.

References