Syphilis on the rise in HIV positive MSM in Germany


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BACKGROUND AND AIMS

• STDs, such as syphilis, have been increasing in recent years among MSM, often HIV+ patients, due to more frequent condomless sex.
• Aim of our study was to evaluate incidence of syphilis infection, impact on immunological and laboratory markers and treatment response of serological markers in a German cohort.

PATIENTS AND METHODS

This retrospective study included 859 HIV+ patients screened for syphilis infection (TPPA, VDRL) November 2015 - May 2017 in the HIV out-patient clinic at Bonn University Hospital. The impact of syphilis and its treatment on renal function markers (serum creatinine, GFR), liver enzymes (gamma-GT, ALT, AST), inflammatory parameters and blood count (CRP, Hb, LDH) and immune response (leucocytes, CD4 count, CD8 count, CD4/CD8 ratio) was investigated 3-6 months before, at time of syphilis diagnosis, and 3-6 months after treatment. Serologic response to syphilis treatment (VDRL, TPPA) was investigated every 3 months after treatment.

RESULTS

In the study period 43/859 (5%) patients were diagnosed with syphilis. Of these 3/43 (7%) were reinfected within the observation period. Compared to incidence of syphilis infection between 2000-2010 there was a 2.4-fold increase in 2016. Past syphilis infection was detected in 28% (244/859). All patients with syphilis were male and 97% MSM. Compared to the whole population patients were younger (mean age 44 yrs. vs. 49 yrs.) and fewer had symptomatic HIV disease (77% CDC stage A vs. 57%) (Table 1). Only 37% developed symptoms of syphilis (47% exanthea, 20% chancre, 20% urethritis, 13% urethritis). At the 3 observed timepoints mean gamma-GT increased from 49U/l to 70U/l (p=0.001) and decreased to 53U/l (Figure 1), respectively, CRP increased from 2.1 to 7.4mg/dl and decreased after treatment to 1.6mg/dl (p=0.002) (Figure 2) and the mean CD4 count dropped from 670/µl to 646/µl at time of syphilis diagnosis and increased significantly after treatment to 715/µl (mean, p=0.022) (Figure 3). The relative CD4 cell count didn’t change during the observation period. Following syphilis treatment VDRL titer showed a slow decrease. After 3-6 months only 50% had a 24-fold decrease, which reached 86% after 9-12 month (Figure 4).

CONCLUSION

• Syphilis coinfection has dramatically increased in our HIV+ population, especially in younger, healthier MSM.
• Regular screening is extremely important in this group of HIV+ patients as more than half of syphilis cases miss symptoms of infection.
• Elevation of gamma-GT and CRP and decrease of absolute CD4 cell count may be an indicator of syphilis infection.
• VDRL can show a slow decrease after treatment and requires monitoring.