

High incidence of early syphilis in HIV-infected patients seeking HIV care at a university hospital in Taiwan, 2009-2014

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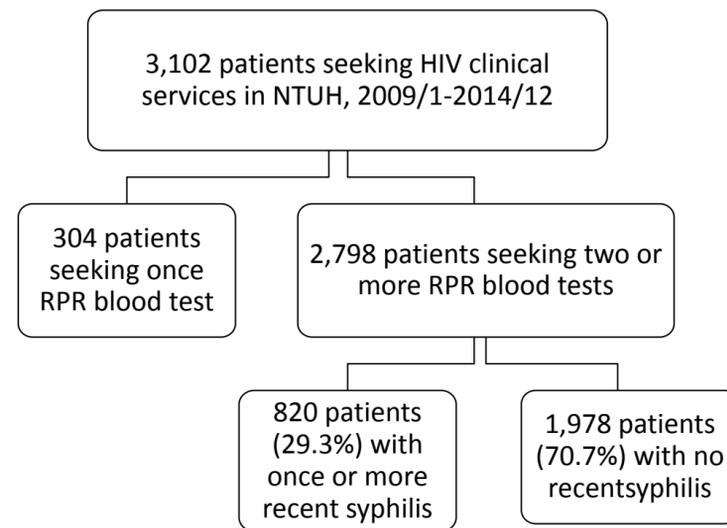
Background

1. The cases of newly diagnosed syphilis have been on the rise in the US and several European countries, especially in men who have sex with men (MSM).
2. The increasing rates of syphilis among MSM have raised concerns about the mutually detrimental interactions between HIV infection and syphilis and increased risks of transmission of hepatitis viruses.
3. We aimed to describe the epidemiology of early syphilis among HIV-infected patients at a university hospital in Taiwan.

Results

1. During the 6-year study period, 3102 patients seeking HIV care and 2798 (90.2%) who had 2 or more RPR titers were included for estimation of the incidence of early syphilis. Of the 2798 patients, 820 patients (29.3%) had one or more episodes of early syphilis during the follow-up (Figure 1).
2. The clinical characteristics are shown in Table 1.
3. The trends of incidence rate of syphilis are shown in Figure 2.

Figure 1. Surveillance study for Syphilis in NTUH



Conclusions

The incidence of early syphilis is increasing in HIV-infected patients who are retained in care and early syphilis is associated with HCV seroconversion in Taiwan.

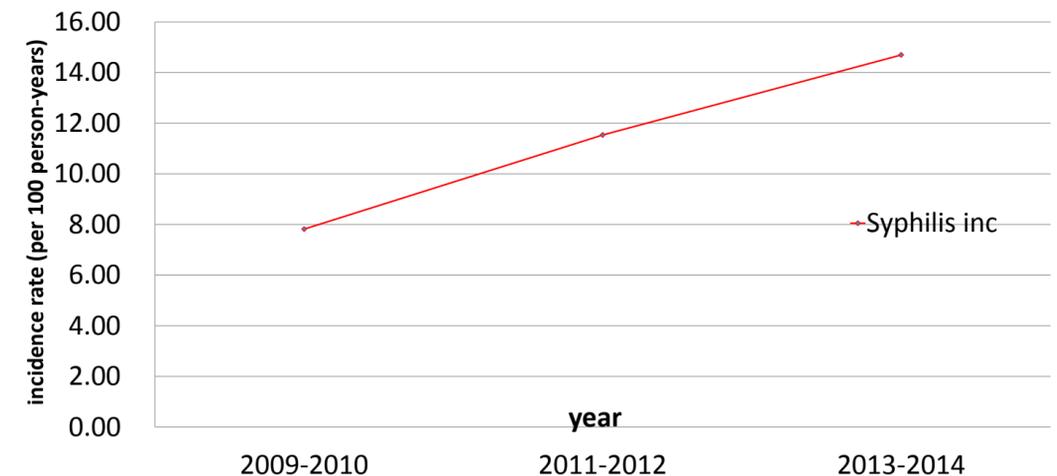
Methods

1. Between 2009 and 2014, patients seeking HIV care at the National Taiwan University Hospital (NTUH) were included in this study.
2. The national guidelines for management of HIV-infected patients, recommend serological tests for syphilis (tests for rapid plasma reagin [RPR] titer) provided to patients at the first visit and subsequently every 6 to 12 months and on an-as needed basis. Follow-up of RPR titers every 3 to 6 months for the first 1 to 2 years are recommended for patients who receive treatment of syphilis.
3. Early syphilis, including primary, secondary and early latent syphilis, was defined according to STDs treatment guidelines of US CDC in 2010.
4. A new episode of syphilis was defined as an increase of RPR titer by 4-fold or greater after ever achieving serological response or development of new symptoms of primary or secondary syphilis during follow-up. Observation continued until patient's death, loss to follow-up and end of the study on 31 December, 2014, which ever occurred first.

Table 1. Comparisons of characteristics between patients seeking HIV clinical services in NTUH with or without recent syphilis

Characteristics	Recent syphilis (n=820)	No recent syphilis (n=1978)	P value
Male, n (%)	818 (99.8)	1847 (93.4)	<.0001*
Age at the study started (mean±SD),yr	32.5 (±8.3)	36.7 (±11.0)	<.0001*
Age at first syphilis in the study (mean±SD),yr	34.5 (±8.6)	-	
Risk, n (%)			<.0001*
MSM	716 (87.3)	1382 (69.9)	
Heterosexual	23 (2.8)	279 (14.1)	
IDU	8 (1.0)	69 (3.5)	
Others	73 (8.9)	248 (12.5)	
Baseline lab results			
HBsAg positive, n (%)	112 (13.7)	292 (14.8)	0.4759
Anti-HBs positive, n (%)	461 (56.2)	962 (48.6)	0.0006*
Anti-HBc positive, n (%)	234 (28.5)	535 (27.0)	0.5583
Anti-HCV positive, n (%)	60 (7.3)	183(9.3)	0.1048
baseline RPR ≥ 4, n (%)	322 (39.3)	262 (13.3)	<.0001*
baseline RPR ≥ 32, n (%)	146 (17.8)	132 (6.7)	
HCV infection after study started, n (%)			
HCV infection after 1'st syphilis occurred, n (%)	68 (79.1)	-	

Figure 2. Syphilis incidence in NTUH during 2009-2014



Acknowledgements: The authors would like to thank Lin Chung-Ching Cultural and Educational Foundation for the travel grant support.