2019

Comparing Trends and Outcomes among HIV-Infected vs. HIV Uninfected Patients with Tuberculosis: A 5-Year Experience Within the Florida Department of Health in Hillsborough County

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370. Comparing Trends and Outcomes among HIV-Infected vs. HIV Uninfected Patients with Tuberculosis: A 5-Year Experience Within the Florida Department of Health in Hillsborough County

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Session: 47. HIV Complications: Opportunistic Infections

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Background. Although the rate of tuberculosis (TB) has significantly declined in the United States, elimination has plateaued. Florida is one of the states with the greatest number of cases. The majority of cases occur in foreign-born individuals. Human immunodeficiency virus (HIV) is also a major contributor. HIV-TB coinfection leads to reciprocal interactions with significant clinical impact. We aim to compare the risk factors, clinical findings, and outcomes among HIV-infected vs. HIV uninfected patients.

Methods. A retrospective cohort study of TB cases over a 5 year period (2012–2017) was conducted. All patients with HIV co-infection with age- and gender-matched HIV negative controls were included. The diagnosis of TB was made via clinical, microbiological, radiological, and/or PCR based methods. SPSS was used for statistical data analysis.

Results. A total of 411 TB cases were identified and 66 patients (33 HIV-infected plus 33 HIV un-infected) were eligible for inclusion. The median age was 49 years (range 22–70). The male to female ratio was 21:12 and 50% of patients had TB symptoms; the rest had abnormal imaging or lab finding. Cases were confirmed via positive sputum smear, culture, or PCR (Figures 1–3). Only 11 patients were lost to follow-up, thus 83.3% completed therapy. A total of 5 persons died (Table 1).

Conclusion. The rate of HIV-TB coinfection in the United States was 5.3% in 2018; higher among injection drugs users, homeless persons, inmates, and alcoholics. In our study, the rate of HIV-TB coinfection was slightly higher (8%). The difference was not statistically significant in regards to foreign born, homelessness, and incarceration. Only 3 patients admitted to injection drug use and 9 used alcohol (all HIV negative). Traditionally, HIV-TB coinfected patients have extra-pulmonary TB with higher rates of negative sputum and are at increased risk of death. In our cohort, the difference was statistically significant ($P = 0.009$) only for cavitary TB (predominated in HIV un-infected) but no difference in outcomes was observed between the two groups. These findings suggest changing trends in HIV-TB coinfection which may be partly related to our setting and demographics but may be attributed to better access to care and antiretroviral therapy at large.

Figure 1. Comparison of smear, culture, and NAAT diagnostic test results for TB+ patients (N=66)

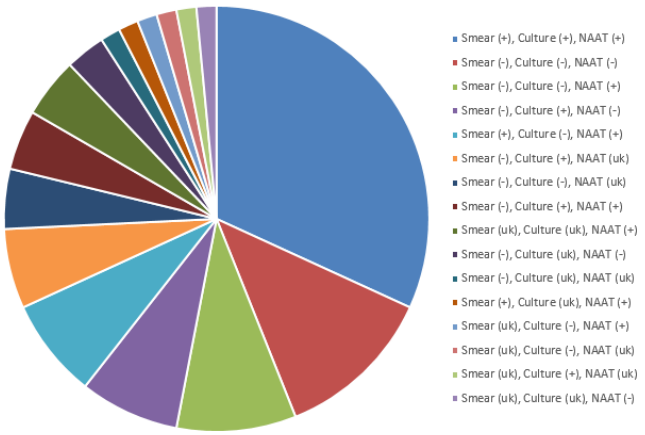

Figure 2. Comparison of smear, culture, and NAAT diagnostic test results for TB+ patients (N=66)

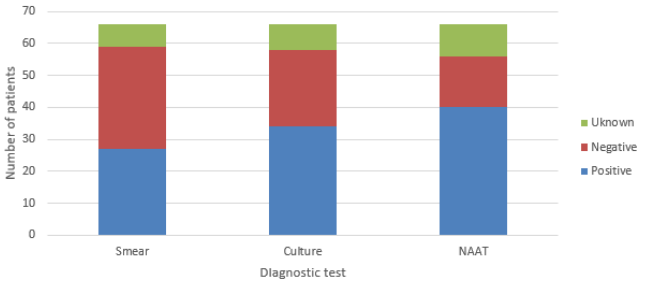

Figure 3. Comparison of smear, culture, and NAAT diagnostic test results for TB+ patients by HIV status (N=66)

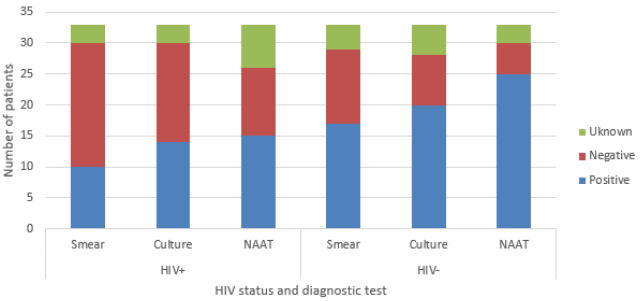

Table 1. Participant characteristics (N=66)

Variable	TB-HIV negative N=33 N (%)	TB-HIV positive N=33 N (%)	p-value
Gender			1.000
Male	21 (63.6)	21 (63.6)	
Female	12 (36.4)	12 (36.4)	
Birth location			0.117
Domestic	19 (57.6)	25 (75.8)	
Foreign born	14 (42.4)	8 (24.2)	
Alcohol abuse			**0.002**
Yes	9 (27.3)	0 (0)	
No	24 (72.7)	33 (100)	
Non IV drug use			0.427
Yes	5 (15.2)	2 (6.1)	
No	28 (84.8)	31 (93.9)	
IV drug use			0.238
Yes	3 (9.1)	0 (0)	
No	30 (90.9)	33 (100)	
Homeless			0.105
Yes	6 (18.2)	1 (3.0)	
No	27 (81.8)	32 (97.0)	
Incarcerated			1.000
Yes	3 (9.1)	2 (6.1)	
No	30 (90.9)	31 (93.9)	
Reason for Consultation			1.000
TB symptoms	15 (45.3)	15 (45.3)	
Abnormal CXR	9 (27.3)	10 (30.3)	
Incident finding	9 (27.3)	8 (24.2)	
TB confirmation			
Confirmed case	26 (78.8)	25 (75.7)	**0.037**
Clinical case	2 (6.1)	2 (6.1)	
Provider case	4 (12.1)	6 (18.2)	
Site			0.523
Pulmonary	26 (78.8)	28 (84.8)	
Extra Pulmonary	7 (21.2)	5 (15.2)	
Imaging abnormality			
Cavitary	17 (51.5)	6 (20.0)	**0.009**
Miliary	3 (9.1)	1 (3.2)	0.614
Completed Therapy	27 (81.8)	28 (24.8)	0.741
Directly Observed	4 (12.1)	6 (18.2)	
Combination (DOT + Self-Administered)	24 (72.7)	24 (72.7)	
Lost to Follow Up	6 (18.2)	5 (15.2)	
Dead	2 (6.3)	3 (9.1)	0.667

Disclosures. **All authors:** No reported disclosures.

371. Tuberculosis and HIV Co-infection at a Tertiary Care Hospital in Thailand

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Session: 47. HIV Complications: Opportunistic Infections

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Background. TB is the most common opportunistic infections (OIs) among patients living with HIV and associated with morbidity and mortality. The objective of the study was to describe epidemiology and characteristics of TB in newly diagnosed HIV patients.

Methods. Retrospective study was conducted at Nakhonpathom hospital, a 722-bed tertiary care hospital in Thailand during October 2016 and September 2018. The data on demography and outcome were collected.