942. Lung Cancer Screening in at-risk patients with HIV in a Midwestern Clinic

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Session: P-44. HIV: Complications and Special Populations

Background. Patients with HIV (PWH) have an increased risk of lung cancer compared to the general population. In 2013, the U.S. Preventive Services Task Force (USPSTF) released their lung cancer screening (LCS) guidelines for the general population. The objective of this study is to evaluate the frequency of and factors associated with LCS using computed tomography in at-risk PWH.

Methods. A retrospective chart review of patients 55-80 years old seen at a Midwestern HIV Clinic between July 1, 2016 to June 30, 2018 was conducted. Demographic, clinical, laboratory, and referral for LCS information were collected. Descriptive statistics and logistic regression models were used for analysis.

Results. We reviewed 347 patients, out of whom 91 were excluded for the following reasons: never smoked (8), deceased (38), pack history unknown (39), and prior lung cancer diagnosis (6). Mean (sd, range) for age was 61 (5.0, 55-78). A total of 256 patients were included in the analysis, out of whom 104 (41%) met the USPSTF criteria. No effect was identified for demographic information including race, ethnicity, gender, or insurance status on LCS referral. LCS referral was made for 22 out of 256 patients (9%) (13% of patients who met the USPSTF criteria and 5% of those who did not). Patients who received tobacco cessation counseling (OR 7.83, P=0.047) and with hepatitis C infection (OR 4.32, P=0.002) were more likely to receive LCS referral. Out of those who received LCS referral, 12/22 (55%) completed the referral. Patients with hepatitis C infection were more likely to complete LCS referral (OR 8, P=0.038).

Conclusion. Only 13% of patients who met USPSTF criteria were referred for LCS. Patients who received tobacco cessation counseling were more likely to receive a referral. Patients with hepatitis C infection were more likely to receive and complete LCS referral. Quality improvement efforts to improve rates of LCS in PWH are needed. Future prospective studies should examine the factors associated with LCS in PWH.

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943. Older Gay Black Men Living with HIV Report Higher Quality of Life than Older Gay White Men, Despite Facing Additional Burdens

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Session: P-44. HIV: Complications and Special Populations

Background. Improving quality of life (QoL) is an important goal of care for people living with HIV (PLWH). This analysis uses data from the Aging with Dignity, Health, Optimism and Community (ADHOC) online registry to identify the different challenges faced by older white/Caucasian ("white") and black/African American ("black") gay or bisexual men living with HIV, and to assess differences in total QoL between the two groups.

Methods. QoL was measured using the PozQoL, a validated instrument for PLWH. The PozQoL assesses QoL across four domains: health concerns, psychological, social, and functional wellbeing. Total QoL was determined by combining domain scores for a total score. Student's t-tests and chi-squared tests were used to identify disparities between black and white men. Factors with $p < 0.05$ were used as control variables in a multivariable linear regression model where PozQoL total score was the dependent variable.

Results. In the ADHOC database, 91% (n=612) of respondents were white men (WM) and 9% (n=59) were black men (BM). Both BM and WM had a median age of 59 years, and had a similar number of comorbidities (7.9 vs 9.2 respectively, p=0.12). Compared to WM, BM were more likely to be single (74% vs 51%, p< 0.001), less likely to have an income greater than $50,000 (25% vs 56%, p< 0.001), less likely to have a college degree or more (42% vs 69%, p=0.034), and less likely to be virally suppressed (87% vs 96%, p=0.001). Even after controlling for these differences in the multivariable model, BM had significantly higher total QoL than WM (Table 1).

Table 1. Multiple linear regression shows higher total quality of life scores for black men vs. white men in ADHOC (n = 671)

Variable	β	*p*-value	95% Confidence Interval	
Race (white males vs. black males)	-0.46	< 0.001	-0.65	-0.28
Single	-0.21	< 0.001	-0.32	-0.10
Income more than $50,000	0.27	< 0.001	0.16	0.38
College degree or more	-0.06	0.053	-0.17	0.041
Virally suppressed	0.31	0.013	0.07	0.55

Conclusion: In this analysis, there were substantial differences between older BM and WM living with HIV. After controlling for sociodemographic and clinical challenges, BM still reported higher QoL than WM. Programs designed to improve QoL for older gay and bisexual BM and WM living with HIV should take into consideration the unique strengths and challenges faced by each group.

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944. Pneumocystis-Tuberculosis Co-infection in the HIV Positive Host.

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Session: P-44. HIV: Complications and Special Populations

Background. Concurrent infection with Pneumocystis Jirovecii (PJP) and Tuberculosis (TB) has been described in HIV infected patients. Developed countries, where guidelines on the treatment of PJP have been created have dramatically lower rates of latent and active TB than developing countries. PJP may obscure the diagnosis or delay the treatment of TB. Furthermore, treatment of PJP with corticosteroids may be detrimental to the course of TB. The objective of this study was to examine the frequency and the clinical characteristics of the co-infection of PJP and TB in HIV.

Methods. The clinical details of all HIV patients being treated at Amrita Hospital in South India have been prospectively collected in an electronic database since 2006. We compiled the data from 2006 to 2018 and further examined the clinical and laboratory results from electronic charts of patients admitted with PJP. Statistical analysis of the data was performed with descriptive analysis.

Results. A total of 21 of the 576 HIV patients were had admissions for PJP. Of these, 43% were co-infected with PJP and TB. In all cases PJP was the opportunistic infection leading to a HIV diagnosis. When comparing the PJP and MTB group with the PJP only group, the dual infected group was younger (40 vs 45), however there was no difference in length of stay (16.5 days vs 11.8), ICU admission rate (33% vs 36%), or mortality (0 vs 3 patients died).

Demographic Data

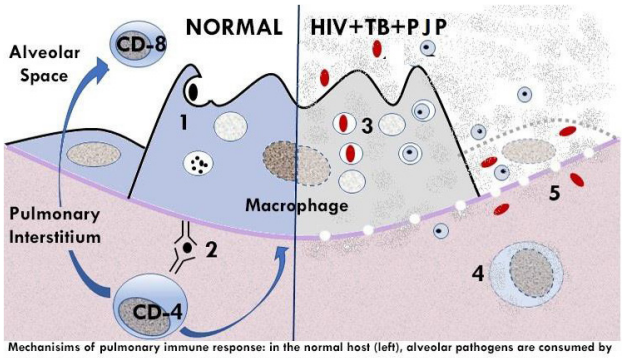
Parameter	All HIV patients	PCP group
Age	43 years (10)	43 years (5.7)
Gender	64% Male 36% Female	71% Male 29% Female
CD-4 count	237 cells/ul (265) Range (2-1874)	50 cells/ul (40) Range (2-135)
Number	575	21

Comparison of TB-PCP and PCP only groups

Parameter	TB Positive Mean (SD) | N	TB Negative Mean (SD) |N	p-Value
Age	40 years (5.1) | 9	45 years (5.3) |12	0.05
Male:Female	8:1	7:5	0.14
CD-4 Count	49.7 (40.5) | 9	50.9 (40.9) |12	0.95
Length of Stay	16.5 Days (17.5) |9	11.8 Days (6.2) |11	0.42
ICU Admission Rate	33% |9	36% |11	0.90
Hypoxia Rate	88% |8	55% |11	0.14
Expired	0/9 |9	3/12 |11	0.10
WBC count/ul	8116 (3494) |9	7004 (3685) |11	0.50
Lymphocyte count/ul	1017(689) |9	1131 (402) |11	0.65
Serum Sodium mEq/L	128.6 (3.8) |8	130.7 (4.6) |10	0.30
Albumin:Globulin Ratio	0.67 (0.18) |9	0.67 (0.17) |11	0.99

Conclusion. Our report highlights the need to increase awareness of occurrence of this dual infection in HIV infected patients, as both infections can mimic each other clinically and radiologically, and are potentially fatal if not recognized promptly. Furthermore tuberculosis has the risk of transmission to health care personnel and other patients. In addition we report a much higher rate of underlying TB in our patients with PJP than what has been generally reported in the literature and conclude that higher clinical suspicion for this entity is warranted, particularly in countries with a high prevalence of TB.

Immunology and Pathophysiology of HIV-PJP-TB triple infection



Mechanisms of pulmonary immune response: in the normal host (left), alveolar pathogens are consumed by pulmonary macrophages (1), followed by phagolysosome fusion and microbial digestion and death. In conjunction with MCH-II protiens (2) antigens are presented to CD-4 T cells which further stimulate immune response and recruit CD-8 cytotoxic T cells. In the HIV/TB infected host (right) several abnormalities are seen. Tuberculoid Mycobacteria inhbit phagolysosome fusion (3), this potentially allows further infection by other organsisms. Furthermore in HIV infection, the absence of effective CD-4 Cells (4) limts propogation of host immune response, leading to organism invasion (5) and breakdown of alveolar gas exchange

Disclosures. **Indira Brar, MD**, **Gilead** (Speaker's Bureau)**janssen** (Speaker's Bureau)**ViiV** (Speaker's Bureau)

945. Prevalence of HIV Associated Non-AIDS Conditions and Associated Risk Factors among Hospitalized HIV-infected Patients in India

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