

(Figure 1). Branching times for L2 and L4 were smaller than L1 and L3 indicating recent introduction into the region ($p < 0.001$ [KS test]).

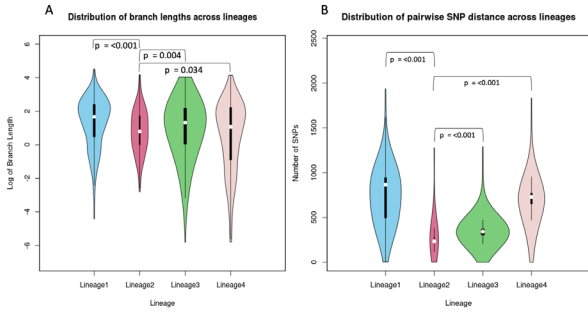


Figure 1: Lineage-wise distribution of A) phylogenetic tree branch lengths (log) and B) pairwise single nucleotide polymorphism (SNP) distance, using 612 tuberculosis isolates from Pune, India. P values calculated using two-sample Kolmogorov-Smirnov test.

	Lineage 1 (n=162)	Lineage 2 (n=45)	Lineage 3 (n=273)	Lineage 4 (n=132)	Total (n=612)
Female Gender	59 (36.4%)	13 (28.9%)	103 (37.7%)	41 (31.1%)	216 (35.3%)
Median Age (Range)	32 (18-74)	29 (18-57)	31 (18-70)	30 (18-65)	31 (18-74)
Smear Positive	138 (85.2%)	40 (88.9%)	222 (81.3%)	110 (83.3%)	510 (83.3%)
HIV Positive	6 (3.7%)	1 (2.2%)	17 (6.2%)	14 (10.6%)	38 (6.2%)
Known Diabetes Mellitus	21 (13%)	3 (6.7%)	38 (13.9%)	18 (13.6%)	80 (13.1%)

Table 1: Demographic characteristics of study participants included in the study, by lineage.

Conclusion. Modern *Mtb* lineages (L2 and L4) were relatively recently introduced in western India, as compared to older lineages (L1 and L3), with the more drug-resistant L2 showing higher transmissibility. These findings highlight the need for early detection and treatment initiation to interrupt transmission with important implications for antimicrobial stewardship and heightened surveillance of TB resistance rates.

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1398. Gland Tuberculosis: A Rare Localization of Tuberculosis

Fatma Hammami, MD¹; Makram Koubaa, MD¹; Amal Chakroun, MD¹; Khaoula Rekek, MD¹; Chakib Marrakchi, MD¹; Fatma Smaoui, MD¹; Mounir Ben Jemaa, MD¹; ¹Infectious Diseases Department, Hedi Chaker University Hospital, University of Sfax, Tunisia, Sfax, Tunisia

Session: P-80. Tuberculosis and other Mycobacterial Infections

Background. Tuberculosis (TB) is a multisystem disease that might affect all organs. Gland TB is characterized with a misleading clinical presentation which often mimic a neoplastic process. The aim of our work was to study the clinical, therapeutic and evolutionary features of gland TB.

Methods. We conducted a retrospective study including all patients hospitalized for gland TB in the infectious disease department between 1999 and 2020.

Results. We encountered 28 cases among which 24 were females (85.7%). The mean age was 39±14 years. A rural origin was noted in 15 cases (53.5%). Two patients were previously treated for TB (7.1%). Systemic symptoms of TB included fever (60.7%), asthenia (53.5%), loss of appetite (46.4%) and weight loss (25%). There were 18 cases of breast TB (64.3%), 4 cases of salivary gland TB (14.3%) and 3 cases of ovarian TB (10.7%). Two cases of pituitary TB (7.1%) and one case of adrenal TB (3.6%) were noted. Multifocal TB was noted in 7 cases (25%). Lymph node (17.8%), pulmonary (14.2%) and peritoneal (7.1%) TB were associated with gland TB. Tuberculin skin test was positive in 19 cases (67.8%). The diagnosis was based on histopathological proof in 23 cases (82.1%), microbiological proof in 4 cases (14.3%) and clinically confirmed in one case (3.6%). The median duration of antitubercular therapy was 10 [9-15] months. Patients received fixed-dose combination in 11 cases (39.2%). Adverse effects of antitubercular therapy were noted in 10 cases (35.7%) represented by gastrointestinal symptoms (14.3%), increase in hepatic enzyme levels (14.3%) and skin reactions (7.1%). The disease evolution was favorable in 26 cases (92.9%). Relapse was noted in two cases (7.1%).

Conclusion. Gland TB included different sites. The presence of systemic symptoms of TB and the diagnosis of TB elsewhere in the body helped through the diagnosis process which requires high index of suspicion. It was mainly based on histological evidence.

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1399. Clarithromycin-Rifampin-based Treatment for Non-tuberculous Mycobacterial Infections in Immunocompromised Patients Who Require Concomitant CYP-Metabolized Medications

Isabel H. Gonzalez-Bocco, MD¹; Muneerah M. Aleissa, PharmD¹; Matthew Cheng, MD²; Jennifer Manne-Goehler, MD, DSc³; Francisco M. Marty, MD³; ¹Brigham and

Women's Hospital, Chestnut Hill, Massachusetts; ²McGill University Health Centre, Montreal, Quebec, Canada; ³Massachusetts General Hospital, Dana-Farber Cancer Institute, Harvard Medical School, Boston, Massachusetts

Session: P-80. Tuberculosis and other Mycobacterial Infections

Background. Non-tuberculous mycobacteria (NTM) are causes of pulmonary and extrapulmonary disease that frequently affect immunocompromised hosts (ICH). Current treatment guidelines recommend a macrolide-based, multi-drug regimen that includes rifampin. Rifampin is a potent cytochrome P450 (CYP) 3A inducer, which often results in drug-drug interactions in ICH receiving multiple CYP substrates. One way to mitigate rifampin's CYP induction is to utilize clarithromycin, a CYP inhibitor, as the accompanying macrolide. We evaluated the incidence of NTM treatment-related adverse events (AEs) in patients who received a clarithromycin-based regimen compared to patients who received an azithromycin-based regimen.

Methods. We conducted a retrospective review of NTM infection in 30 immunocompromised adults. All participants had a positive culture for a NTM and had received a rifamycin (rifampin or rifabutin) with a macrolide (azithromycin or clarithromycin) for treatment at Brigham and Women's Hospital between 01/01/2011-10/18/2020 or Dana-Farber Cancer Institute between 06/03/2015-07/01/2020. The primary outcome was the incidence of NTM treatment-related AEs in patients who received a clarithromycin-based regimen compared to those who received an azithromycin-based regimen.

Results. There were no significant differences in the reasons for discontinuation of NTM treatment or 90-day mortality between groups. The number of AEs possibly related to NTM treatment were similar in patients who received a clarithromycin-based regimen and those who received an azithromycin-based one (10/13 vs. 14/17; $p=0.73$). The most common AE was liver function test abnormalities (Table 1). Additionally, the proportion of patients requiring dose adjustments for interacting medications and patients with out-of-range tacrolimus levels were similar between the two groups (23.1% vs. 29.4%; $p=0.76$ and 8.0% vs. 6.0%; $p=1.00$, respectively).

Table 1: Adverse events

Adverse event	Clarithromycin-based regimen (n=13)				Azithromycin-based regimen (n=17)				p-value	
	Any Grade	Grade 1	Grade 2	Grade 3	Any grade	Grade 1	Grade 2	Grade 3		Grade 4
LFT abnormalities	7	5	1	1	4	3	1	-	-	0.13
QTc prolongation	5	4	1	-	6	3	2	1	-	1
Gastrointestinal (nausea, vomiting, diarrhea, constipation)	3	2	-	-	7	4	1	2	-	0.13
Worsening baseline condition	2	1	1	-	8	4	4	1	-	0.11
Visual alterations	1	-	1	-	1	-	-	-	1	1
Tinnitus	0	-	-	-	2	-	2	-	-	0.49
Hearing loss	0	-	-	-	4	4	-	-	-	0.11

Conclusion. A clarithromycin-based regimen for NTM treatment was safe and well tolerated in our patient population. This combination provides a good alternative for patients requiring medications that are CYP substrates, or those who cannot tolerate azithromycin.

Disclosures. Matthew Cheng, MD, GenIE Lifesciences (Advisor or Review Panel member) Kanvas Biosciences (Board Member, Shareholder) nplex biosciences (Advisor or Review Panel member)

1400. Pretomanid in the Treatment of Patients with Tuberculosis in the United States: the Bedaquiline, Pretomanid and Linezolid (BPaL) Accelerated Monitoring (BAM) Project

Neela Goswami, MD, MPH¹; Lakshmi Praveena Peddareddy, MD¹; John Jereb, MD¹; Angel Colon Semidey, MD²; Elaine Darnall, RN²; Patricia Macias, MD³; Supriya Jasuja, MD, MPH⁴; Karen Landers, MD⁵; Shom Dasgupta, MD⁶; Margaret Oxtoby, MD⁷; Christopher Spitters, MD, MPH⁸; Lana Dov, RN⁹; Masa Narita, MD¹⁰; Malini DaSilva, MD, MPH¹¹; Tracina Cropper, PHA¹²; Cricket Gullickson, BS¹; David Ashkin, MD¹²; Connie Haley, MD, MPH¹³; ¹U.S. Centers for Disease Control and Prevention, Atlanta, Georgia; ²Puerto Rico Department of Health, San Juan, Puerto Rico; ³Illinois Department of Public Health, Chicago, Illinois; ⁴Cook County Department of Public Health, Chicago, Illinois; ⁵Alabama Department of Public Health, Montgomery, Alabama; ⁶Los Angeles County Department of Public Health, Los Angeles, California; ⁷New York State Department of Health, Albany, New York; ⁸Snohomish Health District TB program, Everett, Washington; ⁹Washington State Department of Health, Olympia, Washington; ¹⁰Seattle King County TB Program, Seattle, Washington; ¹¹HealthPartners Institute, Minneapolis, MN; ¹²Florida Department of Health, Miami, Florida; ¹³Southeastern National TB Center, Gainesville, Florida

Session: P-80. Tuberculosis and other Mycobacterial Infections

Background. In August 2019 the U.S. FDA approved pretomanid as part of a 6-month all-oral BPaL (bedaquiline, pretomanid, and linezolid) regimen for treating pulmonary extensively drug-resistant (XDR) or treatment-intolerant or nonresponsive multidrug-resistant (MDR) tuberculosis (TB). In the study supporting approval, 89% of patients had a favorable outcome, and all reported ≥ 1 adverse event. We describe the reported use of BPaL in the United States.

Methods. Using the 2020 CDC Report of a Verified Case of Tuberculosis (RVCT) MDR TB supplemental form, TB programs and providers submitted data for patients who began taking BPaL between Aug 1, 2019 and May 1, 2020, for retrospective descriptive analysis.

Results. Programs and providers reported 17 TB patients aged a mean of 41 years (range 23-76) who received BPaL: 11 (65%) were male; 15 (88%) were non-U.S. born; 15