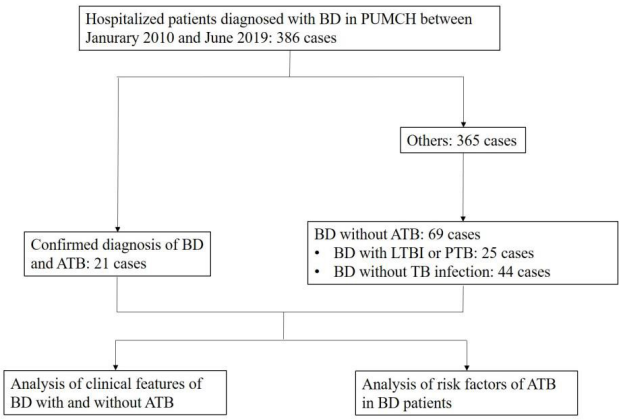
Methods. We retrospectively reviewed medical records of BD patients admitted to our institute from 2010 to 2019. BD patients with ATB were enrolled as the case group, and the control group was selected by random number sampling from the remaining BD patients. Multivariate logistic regression analysis was performed to explore the potential risk factors of ATB in BD patients.

Figure 1. Flowchart of the study



Results: Twenty-one ATB cases were identified from 386 BD patients, including four (19.0%) microbiologically confirmed and 17 (81.0%) clinically diagnosed. ATB patients can present with systemic symptoms (fever, night sweating, unexplained weight loss) and/or symptoms related to the infection site. Logistic regression analysis revealed that ESR>60mm/h (OR=13.710, 95%CI (1.101, 170.702)), increased IgG (OR=1.226, 95%CI (1.001, 1.502)), and positive T-SPOT.TB (OR=7.793, 95%CI (1.312, 48.464), for 24-200 SFC/10^6PBMC; OR=17.705 (2.503, 125.260), for >200 SFC/10^6PBMC) were potential risk factors for ATB in BD patients.

Table 1. Past medical history and medication of BD patients with and without ATB

Table 1. Past medical history and medication of BD patients with and without ATB

		BD with ATB (n=21)	BD without ATB (n=69)	P
Sex (male, %)		13 (61.90%)	35 (50.72%)	0.369
Age (M±SD)		36.19 ± 12.46	38.58 ± 12.68	0.450
Past medical history				
BD course before hospitalization (months, median, IQR)		0 (0, 4)	0 (45.5)	0.245
Previous contact with ATB patients (%)		3 (14.29%)	2 (2.90%)	0.081
Previous prophylactic treatment of TB (%)		1 (4.76%)	3 (4.35%)	1.000
Evidence of PTB [a] (%)		13 (61.90%)	17 (24.64%)	0.002
Previous treatment of BD				
Glucocorticoid	Maximal dosage (mg/d, median, IQR)[b]	0 (0, 50)	25 (0, 60)[m]	0.093
	Duration (months, median, IQR)	0 (0, 3.5)[m]	3 (0, 13)[n]	0.028
Biologics	Infliximab (%)	2 (9.52%)	2 (2.90%)	0.231
	Other TNF-α inhibitors (%)	2 (9.52%)	3 (4.35%)	0.587
Immunosuppressant	CTX (%)	5 (23.81%)	11 (15.94%)	0.515
	CsA (%)	0 (0%)	10 (14.49%)	0.109
	MTX (%)	1 (4.76%)	3 (4.35%)	1.000
	FK506 (%)	1 (4.76%)	2 (2.90%)	0.554
	AZA (%)	2 (9.52%)	5 (7.25%)	0.663
	Number of immunosuppressant used (median, IQR)	0 (0, 1)	0 (0, 1)	0.600
Current treatment of BD[c]				
Dosage of glucocorticoid (mg/d, median, IQR)[b]		0 (0, 15)	5 (0, 32.5)	0.177
Biologics	Infliximab (%)	0 (0%)	2 (2.90%)	1.000
	Other TNF-α inhibitor (%)	1 (4.76%)	0 (0%)	0.233
immunosuppressant	CTX (%)	1 (4.76%)	11 (15.94%)	0.281
	CsA (%)	1 (4.76%)	7 (10.14%)	0.675
	MTX (%)	0 (0%)	0 (0%)	-
	FK506 (%)	1 (4.76%)	1 (1.45%)	0.414
	AZA (%)	1 (4.76%)	1 (1.45%)	0.414
	Number of immunosuppressant used (median, IQR)	0 (0, 0)	0 (0, 1)	0.249

Table 2. Clinical presentation and laboratory results of BD patients with and without ATB

Table 2. Clinical presentation and laboratory results of BD patients with and without ATB

	BD with ATB (n=21)	BD without ATB (n=69)	P
Systemic involvement of BD			
Oral aphthosis (%)	19 (90.5%)	68 (98.6%)	0.135
Genital aphthosis (%)	18 (85.7%)	49 (71.0%)	0.176
Ocular lesions (%)	4 (19.0%)	25 (36.2%)	0.140
Erythema nodosa (%)	12 (57.1%)	30 (43.5%)	0.272
Acne or folliculitis (%)	9 (42.9%)	19 (27.5%)	0.184
Vascular manifestations (%)	4 (19.0%)	25 (36.2%)	0.140
Gastrointestinal tract involvement (%)	6 (28.6%)	24 (34.8%)	0.597
CNS involvement (%)	3 (14.3%)	15 (21.7%)	0.548
Symptoms related to TB infection			
Fever (%)	18 (85.7%)	34 (49.3%)	0.003
Cough (%)	8 (38.1%)	5 (7.2%)	0.002
Expectoration (%)	7 (33.3%)	3 (4.3%)	0.001
Night sweating (%)	8 (38.1%)	4 (5.8%)	0.001
Weight loss (%)	13 (61.9%)	28 (40.6%)	0.086
Laboratory tests			
WBC (× 10^9/L, median, IQR)	6.87 (5.12, 10.64)	7.19 (4.70, 10.10)	0.947
LYM (%, M±SD)	23.35 ± 10.89[m]	22.48 ± 11.71[n]	0.768
HGB (g/L, median, IQR)	120 (102.5,19.5)	125 (103.5,133.5)	0.557
PLT (× 10^9/L, median, IQR)	256 (180.5,357.5)	242 (176,329)	0.504
ESR (mm/h, median, IQR)	31 (22, 57)	16 (6, 39)[n]	0.004
hsCRP (mg/L, median, IQR)	28.32 (8.50, 63.83)	10.37 (1.61, 43.59)[m]	0.038
IgG (g/L, median, IQR)	12.55 (9.98,15.61)[m]	9.6 (7.84,13.13)[n]	0.006
IgA (g/L, median, IQR)	2.78 (1.75, 3.66)[m]	2.28 (1.59, 3.04)[n]	0.286
IgM (g/L, median, IQR)	0.91 (0.71, 1.74)[m]	0.93 (0.71, 1.33)[n]	0.575
Positive T-SPOT.TB (%)	17 (80.95%)[n]	19 (27.54%)[n]	0.000
T-SPOT.TB value (SFC/10^6PBMC, median, IQR)	336 (92, 1084)[n]	0 (0, 27)[n]	0.000

Table 3. Potential risk factors for ATB in BD patients

Table 3. Potential risk factors for ATB in BD patients

	b	SE(b)	Wald	p	OR (95% CI)
ESR (mm/h)					
0-20			4.658	0.097	
20-60	1.719	0.965	3.178	0.075	5.581 (0.843, 36.960)
>60	2.618	1.287	4.141	0.042	13.710 (1.101, 170.702)
IgG (g/L)	0.204	0.104	3.876	0.049	1.226 (1.001, 1.502)
T-SPOT.TB (SFC/10^6PBMC)			9.266	0.010	
24-200	2.076	0.921	5.084	0.024	7.793 (1.312, 48.464)
>200	2.874	0.998	8.288	0.004	17.705 (2.503, 125.260)

OR: odds ratio, CI: confidential interval

Conclusion: When BD patients have fever, night sweating, unexplained weight loss, or manifestations rarely occurred in BD, the diagnosis of ATB should be considered. Significantly elevated T-SPOT.TB indicates a high risk of ATB in BD patients.

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1651. Describing the Tuberculosis Infection Cascade of Care Based on Electronic Health Record Data

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Session: P-72. Tuberculosis and other Mycobacterial Infections

Background. Appropriate screening of individuals to detect latent tuberculosis infection (LTBI) is a critical step for achieving tuberculosis (TB) elimination in the US; >80% of TB cases are attributed to LTBI reactivation. TB infection testing and treatment must engage community health clinics where populations at risk seek

care. However, there are significant data knowledge gaps in the current LTBI cascade of care (CoC) in this setting. We used an electronic health record (EHR) database from OCHIN, Inc., to characterize the LTBI CoC and identify potential future interventions.

Methods. We extracted a cohort of patients from 2012–2016 EHR data; we stratified by whether patients were at risk for TB based on meeting at least one of the following criteria: non-US born or non-English language preference, homelessness, encounter at correctional facility, history of close contact with a TB case, or being immunocompromised. Along each step of the LTBI CoC, we determined the proportions with a test for TB infection, with available test results, with a positive test, with an LTBI diagnosis, and with LTBI treatment prescribed. We used X^2 tests to compare the LTBI CoCs among patients at risk with those classified as not at risk.

Results. Of nearly 2.2 million patient records, 701,467 (32.0%) met criteria for being at risk for TB; 84,422 at risk (12.0%) were tested; 65,562 (77.7%) had available results, of whom 9,624 (14.7%) were positive. Among those with positive results, 6,958 (72.3%) had an LTBI diagnosis, of whom 1,732 (24.9%) were prescribed treatment. Among those classified as not at risk, fewer were tested (66,773 [4.5%], p< 0.001) and had positive results (2,500 [3.7%], p< 0.0001). Among those with positive results, 1,998 (80.0%) had an LTBI diagnosis, of whom 395 (19.8%) initiated treatment.

Conclusion. This study highlights gaps in the LTBI CoC, and where interventions are most needed. The largest gaps were in testing patients at risk, as 88% were not tested, and treatment, as 75% diagnosed with LTBI were not treated. Just under half (44%) of all TB tests appeared to be performed in persons with little risk for TB; this is a substantial amount of testing given very few begin treatment. Resources could be redirected to increase screening and treatment among populations at risk.

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

1652. Diagnoses of Non- Tuberculosis Mycobacterium (NTM) in patients with granuloma on lung biopsy

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Session: P-72. Tuberculosis and other Mycobacterial Infections

Background. The prevalence of non-Tuberculous mycobacteria (NTM) lung disease has increased from 8.7 to 13.9/100,000 from 2008-2013 making NTM lung disease a rising public health problem. Patterns of infection include fibrocavitary, bronchiectatic or nodular. Diagnosis of NTM may be incidental after surgical resection performed during malignancy work up. We aimed to identify the proportion of NTM in resected lung lesions (both nodules and masses) with granulomas (GL) both necrotizing (NGL) and non-necrotizing (n-NGL) on pathology and to compare differences in characteristics of patients with NTM versus those without NTM.

Methods. This was a retrospective chart review of patients who underwent resection of lung nodules and/or a lung mass during malignancy work up from January 2013 through March 2019 including only those with granulomatous inflammation on pathology. 497 patients met these criteria and their electronic medical records were reviewed. Findings of culture-confirmed NTM on tissue, bronchoalveolar lavage or sputum (at time of resection) were classified as "NTM" group; and those with no NTM diagnoses were classified as "Non-NTM" group. Patients with NTM and another diagnoses were classified within the NTM group. Study variables were compared by the dichotomous NTM group using Chi-square test for categorical variables and T-test for continuous variables.

Results. Among all patients, the most common diagnosis was lung cancer (21.93%). There were 81 (16.3%) patients with NTM **(Table 1).** Within the NTM group, percentage of Asians, presence of NGL, placement on airborne precautions and prior history of tuberculosis were significantly higher. The NTM group also had a higher proportion of both COPD and lung cancer as their underlying condition **(Table 2).** 161 patients had non-diagnostic biopsies.

Table 1

Table 1. Final Diagnoses of Resected Lung Granulomas*
*Subgroups may not add up due to overlapping diagnoses

Final Diagnosis	N	%
Mycobacteria	86	17.30
TB	6	1.21
NTM:	81	16.3
• MAI	77	15.49
• *M. abscessus*(2), *M. xenopi* (1), *M. kansasii* (1)	4	0.80
Fungal	34	6.84
Pneumonia	10	2.01
Aspiration	5	1.01
Bacterial	4	0.80
Post Obstructive Pneumonia	1	0.2
Autoimmune	18	2.41
Granulomatosis with Polyangiitis	6	1.21
CTD	1	0.2
Rheumatoid	1	0.2
Vasculitis	3	0.6
Autoimmune, unspecified	7	1.41
Sarcoidosis	40	8.05
Pneumonitis	29	5.84
Fibrosing Pneumonitis	3	0.6
Granulomatous	2	0.4
Hypersensitivity	16	3.22
Interstitial	2	0.4
Other Pneumonitis	6	1.20
Inflammatory Disease other than pneumonitis	22	4.42
Bronchiolitis	7	1.40
Eosinophilic Pneumonia	1	0.2
Organizing Pneumonia	14	2.82
Interstitial Lung Disease	10	2.01
Chronic Obstructive Pulmonary Disease (COPD)	1	0.2
Cancer	119	23.94
Lung Cancer	109	21.93
Metastatic to Lung	5	1.01
Benign Lung Tumor	6	1.21
Other Pneumonitis	2	0.4
Other	4	0.8
Non diagnostic	161	32