

Session: 239. Diagnostics Mycobacteriology
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Background. Latent tuberculosis infection (LTBI) treatment is essential in preventing the reactivation of tuberculosis. We compared the clinical and demographic characteristics of patients that have completed traditional therapy with 9 months of isoniazid (9H) with those that have completed 3 months of rifapentine plus isoniazid using directly observed therapy (3HP), focusing on adverse effects, a barrier to completion that may contribute to discontinuation of therapy.

Methods. We conducted a retrospective chart review (July 2013-March 2017) to compare the 9H group and 3HP group. Demographic and clinical variables were described by therapy type and groups were compared using Fisher's exact test or t-test, as appropriate.

Results. Patients in the study sample ($n = 124$) had a mean age of 49.8 (SD=14.8) years old. Approximately half received 3HP ($n = 64, 51.6%$). Demographics in the 3HP and 9H groups were similar. Significantly more patients in the 3HP group completed treatment (81.3% vs. 61.7%, $P < 0.0001$). No patients were lost to follow-up in the 3HP group, 14 (23.33%) were lost in the 9H group. Gastrointestinal (GI) upset ($n = 16$), elevated liver function tests (LFTs) ($n = 11$), and headaches ($n = 9$) were the most frequent side effects. Except for neuropathy and pancreatitis, all other adverse side effects had higher incidence in the 3HP group. Specifically, the incidence of GI symptoms (23.4% vs. 1.7%, $P = 0.0003$), weakness (9.4% vs. 0%, $P = 0.028$), and headache (14.1% vs. 0%, $P = 0.003$) were significantly higher in the 3HP group. Of the observed patients with adverse reactions that received 3HP, 88.24% ($n = 30$) had them resolved within the first two weeks.

Conclusion. The 3HP group had a higher completion rate and no loss to follow-up compared with 23% loss to follow-up in the 9H group, however, adverse reactions were significantly higher in the 3HP group. Closer weekly monitoring of the 3HP group could lend itself to capturing more adverse reactions, however, 88% of those adverse reactions resolved within the first two weeks of therapy. Liver function tests were not significantly different ($P = 0.2079$) between the two groups, and were mildly elevated. We conclude that three months of rifapentine plus isoniazid for the treatment of LTBI may be a favorable option over the traditional 9 months of isoniazid in certain populations.

Disclosures. All authors: No reported disclosures.

2114. Prevalence of Tuberculous Spondylodiscitis and Diagnostic Utility of Xpert MTB RIF

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Background. To understand the prevalence of TB spondylodiscitis and the diagnostic utility of Xpert MTB RIF test (Genexpert) in the diagnosis of TB spondylodiscitis as compared with a Composite Reference Standard (CRS) based on clinical, mycobacterial smear, culture, pathological, radiological findings and clinical follow up.

Methods. 69 patients with infective spondylodiscitis who underwent surgical or image guided tissue biopsy were evaluated during May 2014 to February 2017. Tuberculous spondylodiscitis were classified as 'confirmed' if culture grew MTB, 'probable' if in the absence of positive AFB culture, clinical, radiological or pathological findings favor TB, 'possible' if all negative but response to ATT was noted.

Results. 36 patient had culture confirmed pyogenic spondylodiscitis; 17 cases were treated empirically though the tissue culture were negative as HPE was suggestive of pyogenic spondylodiscitis. 3 had non-infective etiology.

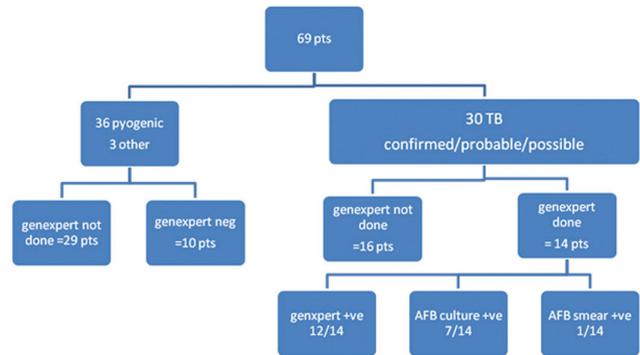
Among 30 who were treated as tuberculous spondylodiscitis, in initial 16 patients genexpert was not done due to non-availability. Among these 16 patients, 1 had confirmed TB as the tissue grew MTB (MDR TB), 15 were treated as probable TB. All patients except one had good outcome. In the 14 patients treated as tuberculous spondylodiscitis in whom genexpert was done, 12 patients had positive genexpert as compared with 7 AFB culture positive patients. In two samples in which genexpert was negative, TB was confirmed by AFB culture and in another by HPE. All patients except one (who had underlying lymphoma) improved with ATT. In all other 10 cases where genexpert was negative, the etiology was pyogenic.

Conclusion. Pyogenic spondylodiscitis is more prevalent than tuberculous spondylodiscitis in this study. Genexpert in tissue from infective spondylodiscitis is more sensitive than AFB smear and culture in diagnosing tuberculous spondylodiscitis.

Table 1: Performance of Genexpert as compared with AFB culture

	genexpert +	genexpert -
Culture -	6	1
Culture +	6	1

Figure 1: Flow chart depicting distribution of cases and genexpert performance



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2115. Prevalence of Gene Mutations profiles by GenoType MTBDRplus/sl to First Line Antituberculous Drugs and Clinical Characteristics in Drug Resistant Tuberculosis Patients Referred to the National Institute of Respiratory Diseases in Mexico City

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Background. Drug resistance tuberculosis, specially MDR and XDR are a big challenge for diagnosis and treatment. In Mexico the prevalence of MDR is between 3-5%, a number probably underestimated due to lack of diagnostic tests for susceptibility. The National Institute of Respiratory Diseases in Mexico City is the national referral center for MDR/XDR tuberculosis. In our country there is no data about the gene mutations involved in drug resistance to first line antituberculosis treatment nor the clinical characteristics that accompany these findings.

Objective: Evaluate the prevalence of genotyping profiles according to a line probe assay (LPA) in patients with drug resistance tuberculosis and their associated clinical characteristics

Methods. Retrospective cohort from 2010 to 2014 of *M. tuberculosis* isolates with any type of resistance to first line antituberculosis drugs identified by MGIT SIRE and in which GenoType MTBDRplus/sl were performed, we evaluate prevalence of genotyping profiles according to the LPA within the isolates and gather data from those with complete medical records to assess clinical characteristics.

Results. In 52 and 33 isolates phenotyping and genotyping MTBDRplus/sl respectively were performed, 41 resistant to Isoniazid INH with 75% genotypic concordance, 33 resistant to rifampicin RIF with 75.6% concordance, 14 to streptomycin SM with 23% concordance and 10 to ethambutol EMB with 100% concordance, 54% MDR tuberculosis. The genotyping profile for RIF was absence of probes rpoB Wild Type 8 (WT) 57.7%, WT 7 30.8% and presence of rpoB mutation 3 (MUT) 19.2%. For INH absence of inhA WT2 48.1% and inhA WT1 19.2%. For EMB absence of embB WT1 30.8% and for SM absence of rrs WT1 (19%). Absence of InhA WT1 was associated with female ($P = 0.01$) and DM2 ($P = 0.032$) patients, other clinical/biochemical characteristics and mortality was not different in patients with or without the genotypic profile for each drug. Cavitory disease by CT was more frequent in patients with WT probe absence in RIF and INH than those who did not have a LPA suggestive of resistance for this drugs.

Conclusion. Wild Type probe absence is the frequent finding in our isolates according to LPA in RIF, INH, EMB and SM, intrinsic host factors and clinical characteristics seem not to be related to a particular resistant gene profile.

Disclosures. All authors: No reported disclosures.

2116. Resistance of Mycobacterium and Outcomes of Pulmonary Tuberculosis Depending on VNTR-Profile Among Different Age Groups of Patients in Ukraine
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Background. Ukraine is among the five countries with the highest burden of multiple drug-resistance tuberculosis (MDR TB). MDR TB has found in 22 % new cases of TB and in 56 % of retreated cases in Ukraine (WHO, 2015), and the elderly among TB-affected persons are near 23%. The aim was to study the resistance of