

EP0055

ePoster Session

News on the diverse mycobacterial infections

Molecular typing of *Mycobacterium tuberculosis* complex species isolated from tuberculous lymphadenitis cases in Addis Ababa, Ethiopia

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Background: Ethiopia is one of the 22 countries with high burden of tuberculosis (TB) cases, and one third of the TB cases in Ethiopia are TB lymphadenitis (TBLN). However, little molecular typing information is available on the mycobacterial species and strains causing TB lymphadenitis. To this effect, adequate knowledge on the species and strains of mycobacteria which circulate among the human population in specific geographic location is required.

Methods and Materials: A cross-sectional study was conducted from January to October, 2014 on 206 TBLN suspected cases. Fine needle aspirate (FNA) or biopsy samples were collected from the cases and cultured on Löwenstein-Jensen (LJ) slants. Identification the species and strains of mycobacteria was made by region of difference (RD) 9 based polymerase chain reaction (PCR) and spoligotyping, respectively. The strains were assigned to families and lineages using SPOTCLUST.

Result: Culture positivity was confirmed in 36% (74/206) of the suspicious cases. Almost all (98.6%) of the isolates were *M.tuberculosis* while only one isolate was *M.bovis*. Further characterization of 73 isolates of *M. tuberculosis* into strain level identified 26 distinct shared international types (SITs) and 13 new patterns, which had not been reported to the SpolDB4.0. The most prevalent strains were SIT149, SIT53, SIT26 and SIT37 comprising 52.6% of the total strains. SB1176 was the strain of *M. bovis* that was isolated from one Tuberculous Lymphadenitis (TBLN) case. The dominant families identified were T, CAS and Haarlem comprising of 81.1% of the isolates. Of the 74 spoligotypes, 49 isolated were members of the Euro-American lineage, 13 were members of the Indo-Oceanic, one was *M.bovis* lineage and the rest could not be grouped into the existing lineages.

Conclusion In the present study, TBLN was mainly caused by *M. tuberculosis* and the predominantly responsible strains were SIT 149, SIT53 SIT26 and SIT37 in decreasing frequencies.