



Tuesday , 27 September 2011



**ERS** EUROPEAN  
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Elicium 1 Session 378 10:45-12:45

11:45

OP Oral Presentation : Non-tuberculous mycobacteria pulmonary infections

3395

**High burden of rapidly growing non-tuberculosis mycobacteria in patients with respiratory disease undergoing elective bronchoscopy**

N. Dissanayake, D. Madegedara, D. MaganaArachchi, U. Karunarathna, D. Yasaratne, C. De Silva, C. Kulathunga, S. Nakandala, P. Wijerathne, C. Wirasinghe (Kandy, Sri Lanka)

**Background:** Pathogenicity of pulmonary non-tuberculous Mycobacteria (NTM) is less well understood than that of *M. tuberculosis* (MTB) complex. Both will show identical results on acid-fast staining (AFS), but culture characteristics are commonly used for differentiation in the local setting.

**Objective:** To assess the pattern of mycobacterial culture among patients with respiratory illness and negative sputum for AFS, in a pulmonary tuberculosis (PTB) prevalent environment.

**Method:** Bronchoalveolar lavage samples from 120 patients were inoculated onto solid media (Lowenstein-Jensen and Middlebrook 7H-10) at 28°C and 37°C, in both light and dark conditions. All patients were negative for sputum AFS. Indications for bronchoscopy were bronchiectasis, cavitary lung disease and smear negative PTB.

**Results:** 67 patients yielded positive colonies within 8 weeks. 37 colonies were positive for AFS, of which 31 were rapidly growing Mycobacteria (RGM; <7 days) and 6 were slowly growing Mycobacteria (>7 days). Rapid colony growth strongly favours towards NTM. PCR based restriction fragment length polymorphism analyses on NTM are in progress. Concomitant sterile water, instrument cleanser fluid and saline samples did not yield culture growth.

**Conclusion:** We observed a high prevalence (>25%) of RGM in the study population. This raises major concerns on possible over-diagnosis of PTB leading to inappropriate therapy and false categorization of patients, in limited resource settings where sputum AFS results play a central role in managing PTB in clinical practice.