

P2325

Abstract (poster session)

Prevalence of Nocardia species in a tuberculosis laboratory of a Portuguese hospital

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Objective: The aim of our work is to present the prevalence of Nocardia species isolated from biological samples, over October 2010 – October 2012 in a Tuberculosis Laboratory. **Methods:** In present work, 22966 samples from 21729 patients were examined. The samples were decontaminated by the N-acetyl-L-cysteine-sodium hydroxide and inoculated in Middlebrook 7H9 broth medium (BD BBL MGIT®) for 42 days at 37°C. The positive cultures were examined by smear microscopy by Kinyoun's stain. The cultures suspected of Nocardia spp. were identified by macroscopic observation of the isolated colonies in blood agar and Middlebrook 7H11 broth media and further smear microscopy by modified Kinyoun's stain. Some isolates were also identified by molecular techniques. **Results:** Sixty two (0,3%) samples were positive for Nocardia spp., of which 50 (81%) corresponding to respiratory samples, 4 (6%) to stools, 3 (5%) to urines , 2 (3%) to blood samples, 1 (2%) to a cutaneous sample, 1 (2%) from a brain abscess and 1(2%) to a bone sample. The samples were collected from 42 patients, 30 (71%) males and 12 (29%) females, with an average age of 61/71, respectively. In what affecting pathology is concerned, 28 (67%) had chronic respiratory diseases, 8 (19%) were immunosuppressed patients, 6 (14%) had autoimmune diseases. Six (14%) patients were diagnosed and treated for nocardiosis. Among the patients non-treated, 13 (31%) had more than one isolation of Nocardia. **Conclusion:** Our data revealed that Nocardia had considerable occurrence among patients suspected of tuberculosis. Firstly, this group holds a high number of patients with chronic respiratory diseases, an important risk factor for Nocardia colonization. Secondly, the clinical and radiographic presentations in nocardiosis are not specific and, among other conditions, may be mistaken by tuberculosis. Thirdly, the 42 days of incubation required for mycobacteria cultures may have improved Nocardia spp. recovery. We think that even in the cases in which Nocardia is considered only a colonizer it could be important to report it to the clinicians, once in the case of worsening of their chronic diseases, these patients can contracted infection by this pathogen.