

TITLE: ISOLATION AND IDENTIFICATION OF *Mycobacterium gordonae* IN BRONCHOALVEOLAR LAVAGE

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ABSTRACT:

Mycobacterias are important agents that can cause infections in humans. *Mycobacterium gordonae* is commonly isolated from soil and water and its rarely associated with human's infections. The nosocomial transmission can occur through water used for washing medical instruments and contaminated dye added to the topical anesthetic used in bronchoscopy. The infection occurs mainly in immunosuppressed individuals, and it can affect soft tissues, bones, joints, lungs, cerebrospinal fluid, peritoneal fluid, pleural fluid, bone marrow, liver, kidneys and heart, being more likely to happen in abnormal lungs affected by neoplasias. This study aimed to report a case of *Mycobacterium gordonae* isolated from a bronchoalveolar lavage sample analyzed at the Hermes Pardini laboratory. The sample was inoculated into Lowenstein Jensen medium and after 42 days of incubation at 37 °C the growth of mycobacteria was detected. The species was identified by real time PCR using 16S rDNA sequencing and restriction enzyme fragmentation profile by molecular biology. Patient data were obtained to discuss the case among the specialists. A 73 year old male patient underwent bronchoscopy to investigate pulmonary neoplasia. He presented symptoms of infection and his bronchoalveolar lavage was sent to Hermes Pardini for analysis. After 34 days of the procedure, he was also submitted to RTU of prostate (Transurethral Resection of the Prostate). The presence of mycobacteria in clinical samples should always be evaluated in laboratories. The possibility of *Mycobacterium gordonae* being a contaminant should always be evaluated, nevertheless, considering its importance in immunologically debilitated patients, its isolation should lead to more thorough investigation. Because it is a rarer species, accurate diagnosis is necessary, as well as reporting to the clinician in charge so that appropriate actions are taken. Finally, due to characteristics of the presented case, it is assumed that the infection has nosocomial origin.

Keywords: infections, *Mycobacterium gordonae*, bronchoalveolar lavage, bronchoscopy.