

Susceptibility Pattern of *Mycobacterium tuberculosis* From Bronchoalveolar Lavage (BAL) Specimen

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Abstract

A high quality specimen is essential for accurate laboratory diagnosis of tuberculosis infection, especially in severe or complicated case of pulmonary tuberculosis infection. Specimen from bronchoalveolar lavage (BAL), which is taken directly from the source of tuberculosis infection sites in the lung, has better quality than spontaneous sputum. BAL specimen is expected to have high sensitivity for diagnosing tuberculosis infection in negative smears cases or difficult pulmonary tuberculosis infection. The aim of this research is to study the susceptibility pattern of *Mycobacterium tuberculosis* complex (MTBC) from BAL specimen. BAL specimens were collected from Clinical Microbiology Laboratory of Dr. Soetomo Hospital throughout April-July 2012. The susceptibility to first line Anti tuberculosis drug of each specimen was examined using liquid method of MGIT 960 system. From 95 BAL specimens, the positive cultures of all BAL specimens showed that 39 were *Mycobacterium tuberculosis* complex positive; 9 isolates were sensitive to Streptomycin, 8 isolates sensitive to Isoniazide, 38 isolates were sensitive to Rifampicine, and 23 isolates were sensitive to Ethambutol. In conclusion, BALspecimen detection is very useful in acquiring accurate results for diagnosing of pulmonary tuberculosis infection.

Key word: BAL specimen, *Mycobacterium tuberculosis* complex (MTBC) , Pulmonary TB