INTISARI

Latar Belakang: Mycobacterium non tuberculosis mengalami peningkatan prevalensi di berbagai wilayah. Resistensi terhadap terapi Mycobacterium Tuberculosis mengakibatkan sulitnya pemilihan terapi antibiotik. Perbedaan pola kepekaan terhadap antibiotik juga mendorong klinisi untuk melakukan uji suseptibilitas antibiotik.

Tujuan: Untuk mengetahui bagaimana tingkat kepekaan Mycobacterium non tuberculosis tipe *rapidly growing* terhadap kanamisin secara *in vitro*.

Metode: Penelitian ini dijalankan menggunakan desain penelitian deskriptif observasional dengan metode *macrobroth dilution test*. Penelitian ini berlangsung di Laboratorium Mikrobiologi Fakultas Kedokteran Universitas Gadjah Mada

Hasil: Dari total 10 isolat Mycobacterium non tuberculosis tipe *rapidly growing*, terdapat 3 isolat (30%) diinterpretasikan suseptibel terhadap kanamisin dengan rentang KHM 2,5-10 µg/ml. Sementara untuk 7 isolat (70%) diinterpretasikan resisten terhadap kanamisin dengan rentang KHM >20 µg/ml.

Kesimpulan: Mycobacterium non tuberculosis tipe *rapidly growing* memiliki tingkat kepekaan mencapai 30%. Hal ini menunjukkan bahwa tingkat resistensi terhadap kanamisin lebih besar, yakni mencapai 70%.

Kata kunci: uji suseptibilitas antibiotik, kanamisin, Mycobacterium non tuberculosis

ABSTRACT

Background: Nontuberculous Mycobacterium appears to be on the increase in prevalence in several areas. Resistance against Mycobacterium Tuberculosis first line therapies restricts the choice of therapies available against the bacteria. The differences in the susceptibility pattern of the bacteria against different antibiotics encourage clinicians to do the Antibiotic Susceptibility Test.

Objective: To identify the level of in vitro susceptibility of rapidly growing mycobacterium against kanamycin.

Methods: This study was conducted using descriptive observational study design method through the utilization of macrobroth dilution test. This experiment was performed in the Microbiology Laboratorium, Fakultas Kedokteran Universitas Gadjah Mada.

Results: It was discovered that, of all ten isolates, there were three (30%) that were found to be susceptible to kanamycin with MIC range between 2,5-10 µg/ml. While the other seven isolates (70%) was found to be resistant to kanamycin with MIC range >20 µg/ml.

Conclusion: To conclude, based on the result of this study, rapidly growing mycobacterium demonstrates up to 30% level of susceptibility. This shows that the resistance level to kanamycin is even higher than that of susceptibility, reaching approximately 70%.

Keywords: Antibiotic Susceptibility Test, Nontuberculous Mycobacterium, Kanamycin