

**DISERTASI**

**HUBUNGAN TIPE STRAIN *Mycobacterium tuberculosis* DAN  
RIWAYAT MINUM OBAT DENGAN POLA RESISTENSI  
PADAPENDERITA TUBERKULOSIS PARU  
DI SUMATERA BARAT**



Oleh:

**Edison**

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**ABSTRAK**  
**HUBUNGAN TIPE STRAIN *Mycobacterium tuberculosis* DAN RIWAYAT  
MINUM OBAT DENGAN POLA RESISTENSI PADA PENDERITA  
TUBERKULOSIS PARU DI SUMATERA BARAT**

**Edison**

Penyakit Tuberkulosis Paru merupakan salah satu penyakit menular yang menjadi masalah kesehatan masyarakat pada negara-negara berkembang termasuk Indonesia, berada pada peringkat ke-4 dunia penderita Tb terbanyak. Prevalensi Tb masih tinggi di Indonesia. Angka konversi di Sumatera Barat berkisar antara 60%-70% dan angka tidak sembuh berkisar 6%-30%. Hal ini pertanda timbulnya kasus resistensi obat di berbagai daerah akibat dari mutasi genetik MTb. Tujuan penelitian ini adalah untuk mengetahui hubungan tipe strain MTb dan riwayat minum obat dengan pola resistensi terhadap OAT pada penderita Tb di Sumatera Barat.

Penelitian dilakukan di Sumatera Barat dengan desain potong lintang. Populasi penelitian adalah semua penderita Tb dengan BTA sputum positif. Jumlah sampel 265 penderita Tb sesuai dengan kriteria inklusi dan eksklusi. Kultur dan tes resistensi dilakukan di Laboratorium Mikrobiologi UGM Yogyakarta, *spoligotyping* dilakukan di Laboratorium Mikrobiologi Unpad Bandung. Data dianalisis secara deskriptif dan analitik dengan uji perbedaan dua proporsi tingkat kemaknaan 5%.

Hasil penelitian ditemukan persentase strain Beijing terbesar yaitu 22,6%. Tidak terdapat hubungan tipe strain dan riwayat minum OAT dengan mono resistens ( $p > 0,05$ ). Persentase MDR sebesar 3% dan terdapat hubungan riwayat minum OAT dengan kejadian MDR ( $p < 0,05$ ).

Kesimpulan penelitian, strain Beijing merupakan strain yang dominan, terdapat hubungan riwayat minum OAT dengan kejadian MDR. Perlu perhatian yang serius dari pengelola program Tb dalam pemberian obat dan monitoring kasus resisten secepat mungkin.

Kata kunci : Tipe strain MTb, Riwayat Minum Obat, Resistensi.

## ABSTRACT

### **THE RELATIONSHIP OF *Mycobacterium tuberculosis* STRAIN AND MEDICATION HISTORY WITH DRUG RESISTANT PATTERN OF PULMONARY TUBERCULOSIS PATIENTS IN WEST SUMATERA**

**Edison**

Pulmonary tuberculosis is one of the infectious diseases and a public health problem in developing countries including Indonesia. According to the WHO global report 2013, Indonesia was ranked the 4th highest number of Tb sufferers. The prevalence of Tb is still high, the conversion rate and the defaulter rate were 60%-70% and 6%-30%, even new problems, namely the case of drug resistance in various regions due to genetic mutations MTb. The purpose of this study was to determine the relationship of MTb strains and medication history with resistance pattern of anti tuberculosis drugs (ATD) in patients with pulmonary Tb in West Sumatera.

The study was conducted with a cross-sectional design in West Sumatera. The population is all Tb patients with sputum smear positive with a sample of 265 patients with Tb according to sample criteria. Culture and resistance tests were performed in the laboratory of Microbiology UGM Yogyakarta, spoligotyping was performed in the laboratory of Microbiology Pajajaran University Bandung. Data were analyzed descriptively and analytically with the difference of two proportions test, with 5% significance level.

The research found that 22,6 percentage of Beijing strains, there was no significant association between Beijing and non-Beijing strains with ATD resistant ( $p > 0,05$ ). We found the association between medication history with MDR ( $p < ,05$ ), and the MDR percentage was 3%.

In conclusion, the Beijing strain is the predominant strain, there is ATD mono-resistant and founded the association of medication history with ATD resistant. The managers of TB program should provide serious attention in drug delivery and follow-up therapy with conduct strict surveillance.

Keywords: Type of MTb strains, medication history, resistance OAT.