Polimorfisme gen n-asetiltransferase-2 pada pasien tuberkulosis dengan kegagalan pengobatan di Puskesmas Kecamatan Pademangan Jakarta Utara = Polymorphisms of n acetyltransferase 2 gene in tuberculosis patient with treatment failure at pademangan district primary health care North Jakarta / Lela Dwi Sary

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Abstrak

ABSTRAK
Pendahuluan: Polimorfisme gen N-asetiltransferase 2 NAT2 dapat mempengaruhi hasil pengobatan infeksi tuberkulosis TB dan risiko terjadinya efek samping kerusakan hati imbas obat anti tuberkulosis. Penelitian ini bertujuan untuk mengetahui distribusi polimorfisme gen NAT2 pada pasien TB naif yang mengalami kegagalan konversi sputum pada pengobatan dengan rejimen OAT standar dan untuk mengetahui apakah polimorfisme gen NAT2 berpengaruh terhadap toleransi dan keberhasilan terapi TB paru dengan INH..Metode: Analisis polimorfisme gen NAT2 dilakukan pada 54 pasien TB naif Puskesmas Kecamatan Pademangan, Jakarta Utara, menggunakan teknik polymerase chain reactions PCR dan dilanjutkan dengan sekuensing. Lima puluh empat pasien TB dikelompokkan menjadi dua kelompok observasi; 26 kelompok gagal konversi dan 28 pasien berhasil konversi.Hasil: Diantara 54 pasien TB, 11,2 adalah gen prediktor asetilator lambat membawa dua alel mutan; NAT2 5, NAT2 6, NAT2 dan 88,8 adalah gen prediktor asetilator cepat membawa satu atau dua alel NAT2 4, NAT2 12, NAT2 13 . Frekuensi asetilator cepat lebih banyak ditemukan pada penelitian ini. Sebanyak 92 pasien yang gagal konversi dan 83 pasien yang gagal pengobatan akhir mempunyai gen asetilator cepat. Tidak ditemukan hubungan yang bermakna antara gen NAT2 dengan kegagalan konversi p=0,423 dan kegagalan pengobatan p=0,415 . Tidak ditemukan satupun kejadian kerusakan hati imbas obat antituberkulosis AT-DILI pada 6 pasien asetilator lambat. Kesimpulan: Tidak ditemukan hubungan antara jenis asetilator dengan kegagalan konversi sputum, kegagalan pengobatan dan terjadinya AT-DILI.
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ABSTRACT
Introduction Polymorphisms of N acetyltransferase 2 NAT2 gene might affect the outcome of TB infection treatment and the risks of developing hepatic adverse event, known as antituberculosis drug induced liver injury AT DILI . The purpose of this study was to find the distribution of NAT2 gene polymorphisms in the naive TB patients, who experienced sputum conversion failure after conventional standard regimen and to clarify whether the NAT2 gene polymorphisms could affect the tolerability and the efficacy of multidrug therapy with INH for pulmonary tuberculosis.Methods Polymorphisms of NAT2 gene were studied in 54 TB naive patients in Pademangan District Primary Health Care, North Jakarta. Twenty six patients were assigned to the sputum conversion failure group and 28 to the conversion group. Analysis was done using polymerase chain reactions PCR followed by direct sequencing. Results Fifty four TB patients slow acetylators, 11,2 rapid acetylators, 88,8 were enrolled in this study. Two mutant alleles NAT2 5, NAT2 6, NAT2 7 were found in slow acetylator genes and NAT2 4, NAT2 12, NAT2 13 in fast acetylator genes. Among 92 patients who experienced sputum conversion failure and 83 patients who undergone treatment

failure have fast acetylator genotypes. There were no significance association between NAT2 genotypes analysis associated to sputum conversion failure p 0,423 and treatment failure p 0,415 . None of the six slow acetylators experienced AT DILI.Conclusion Among patients with sputum conversion failure and treatment failure evaluated in this study, fast acetylator genotypes were more common and no relationship was found between the acetylator genotypes with antituberculosis treatment failure and the occurrence of antituberculosis drug induced liver injury.