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The frequency of HLA-DRB1*15:01 associated with amoxicillin-clavulanate -related DILI in healthy thai population**Nichia Soponpongpiat***Mahidol International Demonstration School, Thailand*

Amoxicillin Clavulanate (AC) is widely use for the treatment of bacterial infection in many countries. However, AC-related drug induced liver injury (DILI) is the most frequent case in

Europeans. Previous study, we found a significant association between HLA-DRB1*15:01 allele and amoxicillin-clavulanate-induced liver injury with p-value = 0.002 and odd ratio (95% CI) = 2.59 (1.44-4.68) in Europeans. Interestingly, the distribution of HLA-DRB1*15:01 allele associated with AC- related DILI were explored in healthy Thais. The aim of this study was to investigate the involvement between of HLA-DRB1*15:01 allele frequency and AC-related DILI in healthy Thai population. Two-hundred general healthy Thai population were enrolled. HLA class II alleles were genotyped using polymerase chain reaction sequence specific oligonucleotides (PCR-SSOs). HLA DRB1*12:02 was the most common allele found across five regions of Thailand. The frequency distributions of HLA-DRB1 alleles were HLA-DRB1*12:02 (15.75%), HLA-DRB1*15:02 (14.75%), HLA-DRB1*09:01 (11.50%), HLA-DRB1*07:01 (9.50%), HLA-DRB1*15:01 (5.70%), HLA DRB1*03:01 (5.70%), HLA-DRB1*14:01 (5.50%), HLADRB1*16:02 (4.50%), HLA-DRB1*04:05(4.00%) and HLA-DRB1*04:03 (3.00%). Particularly, HLA-DRB1*15:01 allele was similarly distributed in Northern (7.00%), North East (4.00%), South (7.00%) and Central (5.00%). The distribution of specific HLA-DRB1*15:01 alleles will support the development of the pharmacogenetics markers for screening DILI in Thailand.

Biography

I am Natthapat Chitthiang, a current junior at Singapore International School of Bangkok in Thailand studying in the International Baccalaureate program. With a passion for biology, especially in the field of genetics, I am interested in how something as minute as a gene could be so fundamental, yet at times so detrimental to human life. I enrolled in a research program at Medcoach Institute, supervised by Professor Patompong Satapompong, to further provoke her curiosity by exploring and researching the field of pharmacogenetics. I wish to pursue higher education majoring in biotechnology or medicinal chemistry.

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