ABSTACT

Faizah, Maulidiyatun Nuril .2015. **Identification Angiotensin Converting Enzyme (ACE) Gene Insertion/Deletion (I/D) in Patients with Hypertension at dr. Saiful Anwar Hospital Malang.** Skripsi, Biology Department, Sciences and Technology Faculty, State Islamic University Maulana Malik Ibrahim Malang. Biology adviser : Kholifah Holil, M. Si ; religious adviser : Umaiyatus Syarifah, M.A

Keyword : Alu element, ACE, Intron 16, Hypertension

Hypertension is one of major health problems in the world. Angiotensin - converting enzyme (ACE) gene has been implicated in the pathogenesis of hypertension. The ACE gene is located on chromosome 17 (17q23.3) and comprises 26 exons and 25 introns. Identified a ACE gene involving the presence (insertion, I) or the absence (deletion, D) of an Alu sequence of 287 bp in the intron 16 of the gene. The objective of this study was to identification and detection genotype and allele ACE gene insertion/ deletion in patients with hypertension.

Method of this study is descriptive and use 100 hypertensive subjects from dr. Saiful Anwar Hospital Malang. ACE gene identified I/D was examined by conventional PCR. Fragment identification of intron 16 from ACE gene produced PCR 597 bp for insertion allele or 319bp for deletion allele. Genotype was classified as II, ID, or DD based on positive or negative insertion/deletion allele.

Result of this study showed frequency of genotype II was higher compared to genotype ID and DD they are 48%, 30%, 22%.