

## INTISARI

### Hubungan Polimorfisme Gen ACE dengan Subtipe Stroke Iskemik

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**LATAR BELAKANG :**Stroke adalah defisit neurologis yang ditujukan ke *acute focal injury* pada sistem saraf pusat yang berlangsung lebih dari 24 jam karena penyebab vaskular antara lain infark serebral, perdarahan intraserebral dan perdarahan *subarachnoid* dan merupakan penyebab mayor disabilitas dan kematian di dunia. Stroke iskemik diklasifikasikan berdasarkan sistem TOAST. Stroke iskemik terjadi karena disebabkan oleh beberapa faktor yaitu faktor genetik salah satunya polimorfisme gen ACE dilaporkan terdapat hubungan dengan terjadinya subtipe stroke iskemik. Penelitian di India Selatan menunjukkan bahwa alel I berhubungan dengan aterosklerosis arteri besar sedangkan pada penelitian yang dilakukan di Tunisia menunjukkan bahwa terdapat hubungan genotip DD dengan stroke lakunar. Hal itu menunjukkan masing-masing daerah terdapat perbedaan satu sama lain.

**TUJUAN :**Penelitian ini bertujuan untuk mengetahui hubungan polimorfisme insersi/delesi (I/D) gen ACE dengan subtipe stroke iskemik di Yogyakarta, Indonesia.

**METODOLOGI :**Desain penelitian yang digunakan adalah desain *cross sectional*. Desain ini digunakan untuk meneliti hubungan polimorfisme gen ACE (*Angiotensin Converting Enzyme*) dengan terjadinya subtipe stroke iskemik di RSUP dr. Sardjito, Yogyakarta.

**HASIL :**Didapatkan nilai *significancy*  $p=0.608$  antara polimorfisme gen ACE dengan subtipe stroke iskemik serta didapatkan nilai OR polimorfisme gen ACE sebesar 1.406 terhadap subtipe stroke iskemik.

**KESIMPULAN :**Tidak terdapat hubungan yang bermakna antara polimorfisme gen ACE dengan subtipe stroke iskemik.

**KATA KUNCI :**polimorfisme gen ACE, subtipe stroke iskemik.

## ABSTRACT

### Correlation ACE Gene Polymorphism with Ischemic Stroke Subtypes

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**BACKGROUND :**Stroke is a neurological deficit that is intended to acute focal injury in the central nervous system that lasted more than 24 hours due to vascular causes include cerebral infarction, intracerebral hemorrhage and subarachnoid hemorrhage and is a major cause of disability and death in the world. Ischemic strokes are classified based system TOAST. Ischemic stroke occurs because it is caused by several factors: genetic factors one of which reportedly ACE gene polymorphism correlation with the occurrence of ischemic stroke subtypes. Research in South India shows that the I allele associated with large artery atherosclerosis whereas the research conducted in Tunisia shows that there is a relationship with the DD genotype lacunar stroke. It shows each region there are differences with each other.

**AIM :**This study aims to determine the correlation of polymorphism insertion / deletion (I / D) gene ACE with ischemic stroke subtypes in Yogyakarta, Indonesia.

**METHODS :**The design study is cross-sectional design. This design is used to examine the relationship of gene polymorphism ACE (Angiotensin Converting Enzyme) with the occurrence of ischemic stroke subtypes in RSUP dr. Sardjito, Yogyakarta.

**RESULTS :**Obtained significance value of  $p = 0608$  between ACE gene polymorphism with ischemic stroke subtype and obtained the value of ACE gene polymorphism OR of 1.406 to the subtype of ischemic stroke.

**CONCLUSION :**There was no significant relationship between ACE gene polymorphism with ischemic stroke subtypes.

**KEYWORDS :**ACE gene polymorphism, subtypes of ischemic stroke