

## ABSTRACT

### **The levels of Reactive Oxygen Species Superoxide Radical ( $O_2^-$ ) and Nitric Oxide (NO) in Patients Hypertension and Normotension**

Hypertension are still becoming an huge health society matter in Indonesia due research prevelancy increasing. This is able to cause a complication deseases; such as a heart attack, a stroke attack, and a renal failure. Hypertension occurs may be various factors. Free Radical factor (Reactive Oxygen Species) is one of factors consisting of Superoxide Radical ( $O_2^-$ ) and Nitric Oxcide (NO). This study was aimed to investigate the difference of level Reactive Oxygen Species between Superoxide ( $O_2^-$ ) and Nitric Oxcide (NO) toward Hypertension and Normotension patients. This study used cross sectional method with 24 samples dividing into 12 cases and 12 control, samples taken by simple random sampling method. This study was divided into two free groups.  $T_2$  test free samples (Independent Sample T Test) was applied to determine the difference. The result of this study showed the different in terms of variables, which are Superoxide ( $p=0.029$ ) and NO ( $0.006$ ). Based on the study, this was concluded that there was a difference shown by the level of Superoxide and Nitric Oxcide in Hypertension and Normotension patients which the level of Superoxide in Hypertension patients were higher and lower for the level of Nitric Oxcide than the Normotension patients'.

**Keywords:** Hypertension, Reactive Oxygen Species, Superoxyde Radicals, Nitric Oxyde.