

## ABSTRACT

**Purpose** : To analyze the effect of intraocular ischemia reperfusion to malondialdehyde plasma level on Wistar rats.

**Methods** : An experimental laboratories study conducted in Biochemical Laboratory Airlangga University on November-December 2016. Total sample size used are 32 mice were divided into 2 groups. Ischemia reperfusion done by raising IOP of 110-130 mmhg and be maintained for 60 minutes through needle 30 Gauge in anterior chamber connected to normal saline and lowered to the normal conditions by removing needle from anterior chamber. Evaluation of ischemia through changes in iris pale color through a microscope. While reperfusion conditions is ensured through the return of iris color as the initial condition. Evaluation of plasma malondialdehyde levels were measured by competitive ELISA on days 7 after ischemia reperfusion. The data were analyzed with the Mann-Whitney test.

**Result** : The results of the examination of plasma MDA in the control group research subjects have a minimum level of 72.10 ng / ml and a maximum of 387.10 ng / ml while the treatment group had higher levels of MDA minimum of 104.00 ng / ml and a maximum of 473.40 ng / ml. The mean levels of MDA in the control group amounted to 192.23 ng / ml and the treatment group amounted to 221.18 ng / ml and p-value = 0.327

**Conclusion** : There is no difference between the plasma MDA concentration control group to the experiment group, but descriptively obtained plasma MDA levels higher in the experiment group compared with the control group.

**Keywords** : Ischemia reperfusion, malondialdehyde, ELISA