

## Abstract

### **Comparison of the level of Malondialdehyde(MDA)human seminal plasm before and after administration of ubiquinon**

**Cecilia Lisayani**

**Objective :** The general objective of this study was to determine differences in the levels of Malondialdehyde (MDA) human seminal plasm before and after administration of ubiquinon.

**Method :** This study is a quasi experimental, pre and post test design. This study was designed by using the comparative method. This research was conducted in the Andrology Clinic of Dr.Soetomo Hospital and The laboratory of Pharmaceutical Chemistry Faculty of Pharmacy Airlangga University, Surabaya from February 2014 until April 2014. The population of the study was semen samples of patients who had visited The Andrology Clinic of Dr.Soetomo Hospital,Surabaya. The number of patients involved in this study was 10 people for nomozoospermia group, and 11 people for non normozoospermia group. Each semen sample of a patient was examined for sperm analysis and Malondialdehyde(MDA) levels, then patients were given 50mg ubiquinon taken one soft capsul daily after meals, for 15 days. Semen samples were then reexamined for sperm analysis and MDA levels. The results were compared. Data was analyzed using a paired t test. Statistically, the study results showed a significant difference of MDA levels of seminal plasm in normozoospermia groups before and after administration of ubiquinon. In normozoospermia groups and non normozoospermia groups there was no significant difference between the levels of MDA seminal plasm and sperm analysis results (concentration and motility).

**Conclusion :** In normozoospermia groups showed significant difference in the levels of MDA seminal plasm before and after administration of ubiquinon. In normozoospermia groups and non normozoospermia groups there was no significant difference between MDA levels of seminal plasm and the sperm analysis results (concentration and motility) before and after administration of ubiquinon.

**Keywords :** sperm analysis, malondialdehyde, lipid peroxidation, reactive oxygen species, ubiquinon.