

## ABSTRACT

**Yohana Asri Dwi Riawanti, 2023.** Effect of Giving Tacokak Milk (*Solanium Torvium*) on MDA (Malondialdehyde) Levels in Women of Productive Age 20-45 Years. Thesis. Bachelor of Applied Nutrition and Dietetics Study Program, Department of Nutrition, Ministry of Health Polytechnic. (Under the guidance of : **Dr. Nur Rahman, STP., MP.,RD and Fifi Luthfiah, SST.,M.Kes**).

Oxidative stress is a condition that has the potential to be bad for the body's health. Oxidative stress in the body targets damage to all types of biomolecules such as proteins, lipids and DNA. Oxidative stress is the result of an imbalance between reactive oxygen species (ROS) and the antioxidant system as a defense. Indicators of macromolecular damage by ROS such as malondialdehyde (MDA). However, this state of oxidative stress can be overcome by consuming foods that are rich in polyphenols, namely is takokak. The purpose of this study was to determine the effect of giving takokak milk which is rich in polyphenols on levels of the antioxidant enzyme malondialdehyde (MDA) as a marker of oxidative stress and consumption levels in productive women aged 20-45 years. This study used a quasi experimental design with a non equivalent control group design. The number of subjects in this study were 20 subjects at LKSA Rabbani, Singosari, Malang Regency, randomly divided equally into the control group (n=5) and the intervention group (n=15) for 15 day. The intervention group consumed  $\pm 40$  grams of takokak milk (as a fresh drink), while the control group did not consume it. Food consumption level data was collected using a 2x24 hour food recall technique 2 times before and during the intervention. Blood samples were taken in the morning on the first week before the intervention activities were carried out and on the 14 day of the intervention to analyze malondialdehyde levels as a marker of oxidative stress. The results showed that overall a significance value of ( $p=0,500$ ) was obtained, because the sig value was  $>0,05$  it was stated that there was no significant difference in MDA levels between treatment groups. The results show that consuming takokak milk can improve conditions of oxidative stress.

Keywords: antioxidant enzymes, polyphenols, oxidative stress