

**PENGARUH PEMBERIAN MINYAK BUAH MERAH
(*Pandanus conoideus* oil) TERHADAP KADAR KOLESTEROL TOTAL
TIKUS (*Rattus norvegicus strain wistar*) DENGAN DIET ATEROGENIK**

*(The Effect of Red Fruit Oil (*Pandanus conoideus* oil) Toward Total Cholesterol Content
of Rat (*Rattus norvegicus strain wistar*) with Aterogenic Diet)*

*Ninna Rohmawati , ** Emi Wuri Wuryaningsih

ABSTRACT

*Cardiovascular Disease (CVD) serves as the main cause of death in the world. The controllable main risk factor in Coronary Heart Disease (CHD) is LDL cholesterol content, triglycerida, and HDL cholesterol content in blood. This risk factor is used as standard indicator of heart disease occurrence, such as total blood cholesterol content, LDL content, HDL, triglycerida, body mass index and blood pressure. Many researches indicate that there was correlation between total blood cholesterol content and atherosclerosis. The attempt to control coronary heart disease is by using antioxidant. Antioxidant can obstruct oxidation process and neutralize free radical to prevent various degenerative disease. Red fruit (*Pandanus conoideus lam.*) is one of the fruits containing antioxidant, namely β -carotene (700 ppm) and alphotocopherol (500 ppm), meanwhile red fruit oil – Minyak Buah Merah (MBM) contains β -carotene 694 ppm and alphotocopherol 495,5 ppm. This study was intended to find out the effect of red fruit oil (*Pandanus conoideus* oil) toward total cholesterol content of rat (*Rattus norvegicus strain wistar*) with Aterogenic diet.*

This study was an experimental study. The design applied was complete randomized design with 3 repetitions and 8 treatment levels, namely P_0 (diet standard), P_1 (Aterogenic diet), P_2 (S + MBM 0,12 ml/day), P_3 (S + MBM 0,24 ml/day), P_4 (S + MBM 0,36 ml/day), P_5 (A + MBM 0,12 ml/day), P_6 (A + MBM 0,24 ml/day), P_7 (A + MBM 0,36 ml/day). The parameter was total cholesterol content. The process and data analysis applied Oneway Anova statistical test and followed with DMRT (Duncan Multiple Range Test).

*The result of Oneway Anova statistical test in confidence level 99% indicated that there was variance of significant total cholesterol content ($p=0,000$) among every treatment levels. The effect of using red fruit oil (*Pandanus conoideus* oil) toward total cholesterol content of rat (*Rattus norvegicus strain wistar*) with aterogenic diet effective in 0,12 ml/day.*

*The conclusion inferred from this study indicated that using red fruit oil (*Pandanus conoideus* oil) has significant effect toward reduction of total cholesterol content of rat (*Rattus norvegicus strain wistar*) with aterogenic diet.*

Key Words : *Red fruit oil, total cholesterol content, aterogenic diet.*

*) Ninna Rohmawati, S.Gz adalah Dosen Bagian Gizi Kesehatan Masyarakat Fakultas Kesehatan Masyarakat Universitas Jember

***) Ns. Emi Wuri Wuryaningsih, S.Kep adalah Dosen Departemen Keperawatan Jiwa dan Komunitas Program Studi Ilmu Keperawatan Universitas Jember