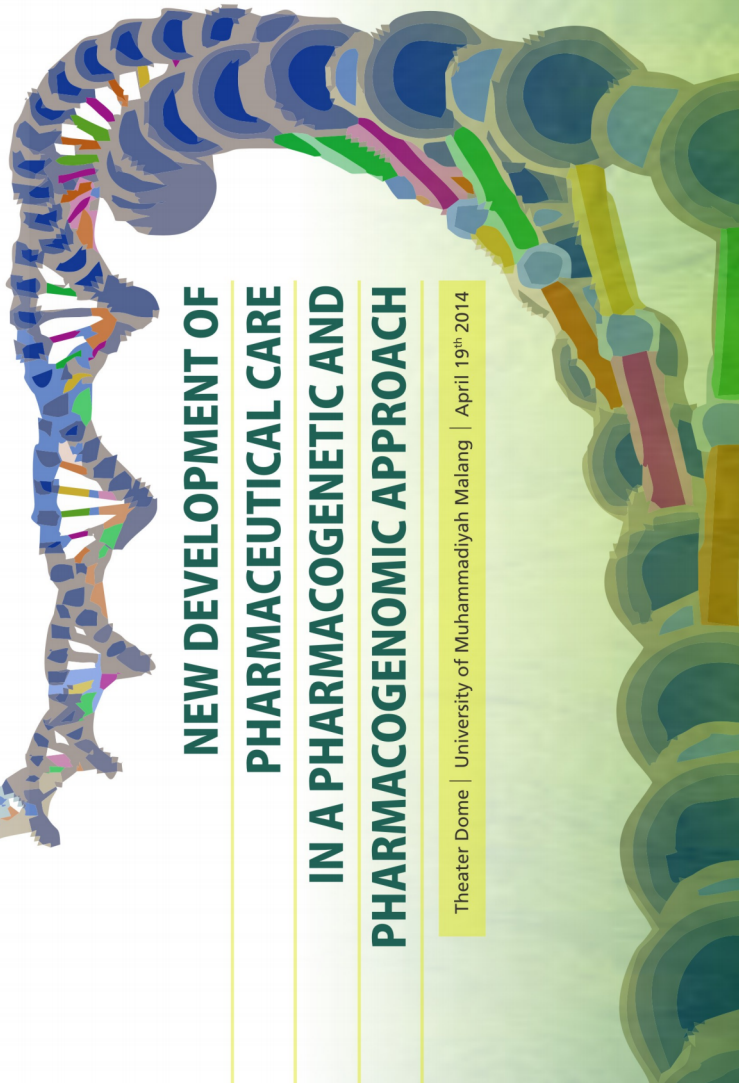


PROCEEDING

The International Conference
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NEW DEVELOPMENT OF PHARMACEUTICAL CARE IN A PHARMACOGENETIC AND PHARMACOGENOMIC APPROACH

Theater Dome | University of Muhammadiyah Malang | April 19th 2014

PROCEEDING THE INTERNATIONAL CONFERENCE PHARMACEUTICAL CARE



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ASSESSMENT OF HEPATOPROTECTIVE EFFECT OF POLYHERBAL COMBINATION OF *PHYLLANTHUS NIRURI* (MENIRAN), *CURCUMA XANTHORRHIZA* (WILD GINGER) AND *CURCUMA LONGA* (TURMERIC) AGAINST LIVER DYSFUNCTION DUE TO ANTI-TUBERCULOSIS DRUGS

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ABSTRACT

Background : Antituberculosis drugs therapy provides good efficacy, but likewise can induce adverse effects including hepatotoxicity.

Objective : To assess the hepatoprotective effect of polyherbal combination of *Phyllanthus niruri* (meniran), *Curcuma xanthorrhiza* (wild ginger) and *Curcuma longa* (turmeric) against liver dysfunction due to anti-tuberculosis drugs.

Methods : Thirty-four patients with newly diagnosed with TB, who met the inclusion criteria were divided into 2 groups randomly. As a control group (17 patients) received anti-tuberculosis drugs and placebo, while trial group (17 patients) received anti-tuberculosis drugs and polyherbal, each given for 4 weeks. Measurement of patient's ALT levels performed at week 0 (before starting therapy) and week 4.

Results : After 4 weeks of treatment, there was only one patient from the control group who experienced mild hepatotoxicity (ALT levels of 68 U/L). The mean of ALT levels in trial group was significantly lower than the control group (15,12 ; 6,83 vs 26,47 ; 13,32, $p=0,001$). In the control group, the mean of ALT levels increased by 80,68%, whereas in trial group the mean of ALT levels decreased by 31.65%. The difference in the mean of ALT levels in both groups showed significant differences ($p=0,000$).

Conclusion : Giving polyherbal combination of *Phyllanthus niruri* (meniran), *Curcuma xanthorrhiza* (wild ginger) and *Curcuma longa* (turmeric) for 4 weeks can prevent elevation of ALT levels during antituberculosis drugs therapy.

Keywords : antituberculosis drugs, *Phyllanthus niruri*, *Curcuma xanthorrhiza*, *Curcuma longa*, hepatoprotective.

INTRODUCTION

The incidence of tuberculosis (TB) in Indonesia is still very high. Based on tuberculosis annual report by WHO, at the end of 2011 Indonesia became the fourth-largest contributor of TB cases in the world, with the number of new TB cases was 370-540 thousands (WHO, 2011).