Archives of Pharmacy Practice
Abstract Conference Proceedings
2nd Asia Pacific Pharmacy Education (PharmED) Workshop
ISSN 2045-080X Vol. 3, Issue 1, 2012

CP-014

EFFECT OF FERMENTATION ON THE HEPATIC CYTOCHROME p450 EXPRESSION OF HERBAL MEDICINE, *GAL-GEUN-TANG* IN RATS

Sang Yoon Lee, Kye Sook Lee, Bong Hee Kim, Sang Kyum Kim
College of Pharmacy, Chungnam National University, Korea

ABSTRACT

The purpose of this study is to assess the expression of hepatic cytochrome P450 (CYP) on bio-converted (fermented) herbal medicine, Gal-geun-tang (GGT), using S9 fractions of 1-week treated normal control (DW), GGT-con (non-fermented), GGT-LP144 (fermented by Lactobacillus plantarum, stratin No. 144) and GGT-LP402 (fermented by Lactobacillus plantarum, stratin No. 402) in SD male rat. Hepatic S9 fractions of CYP isoforms (CYP1A2, 1B1, 2B1, 2C11, 2E1, 3A1, 3A2 and 4A1) were studied by immunoblot analysis. Treatment of rat with 1 g/kg per day GGT-con and GGT-LP144 for 7 days caused 2.5-fold and 2.8-fold significant increases of CYP4A1 expression, and 1.5-fold and 1.5-fold significant increases of CYP1B1 expression than normal control treated rat, respectively. However, expression of GGT-LP402 didn't increase significantly than that of normal control treated rat. Meanwhile, there are no significant differences in expression of hepatic CYP isoforms including immunoblots of CYP1A2, 2B1, 2C11, 2E1, 3A1 and 3A2. Further studies are needed to identify the changes of CYP1B1 and 4A1 expression on components of GGTs.