

3RD WORLD CHEMISTRY CONFERENCE &
World Congress on
BIOTHERAPEUTICS AND BIOANALYTICAL TECHNIQUES
September 11-12, 2017 Dallas, USA

Effect of ethanol extract of *Thymus vulgaris* on liver enzymes (AST, ALT and ALP)

Unegbu C C

Federal Polytechnic Nekede, Nigeria

Statement of the Problem: According to WHO, 80% of the world's population, primarily those of developing countries, rely on plant derived medicines and herb products for their healthcare. However, many of these herbs and natural products have not been thoroughly evaluated and their safety and effectiveness may have not been proven. *Thymus vulgaris* is one of the plants that is used as spices and employed in Nigeria folk medicine in the management of ailments. The purpose of this study is to investigate the acute toxic effect of ethanol extract of *Thymus vulgaris* on liver enzymes (Serum aspartate aminotransferase, Alanine transaminase and Alkaline phosphatase) in male Wistar albino rats.

Methodology: Sixteen male Wistar albino rats weighing 120-180 g were used for this study and were randomly divided into 4 groups of 4 rats per group. Group 1 (control) received clean water and feed alone ad libitum while the test groups 2-4 received 100 mg/kg, 300 mg/kg and 500 mg/kg body weight of the extract respectively as well as feed. Treatment was given orally once daily and lasted for 14 consecutive days, after which the animals were sacrificed and blood samples were taken for liver function tests. The findings revealed non-significant ($p > 0.05$) difference in the entire group for AST, ALT and ALP when compared with the control group and the histological evaluation did not show any adverse alteration in the morphological architecture of the liver tissue of the Wistar albino rat.

Conclusion & Significance: This thus suggests that the extract was non-toxic to the liver at the different concentrations used and encourage the continuous use of *Thymus vulgaris* as spice for cooking.

negbu@fpno.edu.ng