

## Depletion of Hepatic Antioxidant Enzymes

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### INTRODUCTION

The discovery since prehistoric era that plants products, in addition to their nutritive values, could serve as therapeutic weapons against various human, animal and even plant diseases has made plants a sine qua non to human and animal lives and has led to the formulations of many herbal and/or polyherbal medicines. Polyherbs are plants-derived herbal medicines popularly known as “polyherbal drugs or phytomedicines and are currently renowned and recognized as the most common form of alternative medicines in recent years According to Pieme et al. they are herbal recipes in the form of teas or extracts often prepared from the combinations of two or more plants and/or plant-products that contain active constituents with multiple physiological activities They could be used in the treatment of many diseases, and their use as herbal remedies in the treatment of various diseases is gaining increasing popularity; and thus making them the main stay of health care system, especially among the rural populace in the developing countries. In fact, according to Ogbonnia et al. about 60% of the world population both in developed and developing countries where modern medicines are being practiced predominantly used herbal or polyherbal medicines for therapeutic purposes. Some of these polyherbal formulations are; Evans healthy bitter, Yoyo bitter, Fidson bitter, Swedish bitter, Oroki herbal mixture, Pax herbal mixture, Asheitu Adams blood purifier, Asheitu Adams formula for diabetes, Goko Cleanser, Living bitter etc. and their various manufacturers claimed they could heal and/or prevent all manners of diseases when used at their recommended dosages. For instance, the manufacturer of Oroki herbal mixture claimed it is formulated for pile, dysentery, constipation, diarrhea, waist and stomach pain etc. while Evans healthy bitter manufacturer claimed it could stimulate and maintain the production and flow of bile, improve

digestion and appetite, give feeling of well-being etc .and the manufacturer of Fidson bitter recommends it for poor digestion, painful digestion, loss of energy, poor appetite, anemia, immune disorder, bacterial and viral infections, intestinal cramps etc.. However, in spite of all these acclaimed therapeutic uses/medicinal benefits of these polyherbal medicines by the manufacturers, as well as their wide patronage by the populace, there are only little or no scientific information (empirical data) on the effects of these polyherbs on in vivo antioxidants, because according to Adeyemi et al. scientific data on safety and toxicity profiles of these polyherbal medicines are in dearth. Recent studies have demonstrated the need to subject some of these herbal mixtures (polyherbal drugs) to scientific scrutiny and systemic approach evaluations, so as to ascertain their efficacy, side effects, toxicity and safety limits through experimentations and clinical and more importantly because, there is no stringent government regulation in Nigeria on herbal/polyherbal medicines like as it is with conventional drugs. The results also revealed that there was no statistically significance difference in CAT concentrations between the control and the various polyherbal medicines’ treatments however; polyherbal medicines caused decrease in CAT levels of the experimental animals.

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