

Therapeutic and toxic effects of *Enantia chlorantha* (Annonaceae) Stem Bark extracts in *salmonella* Typhi-induced rats

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Background: Bacteria are responsible for a large number of diseases worrying the world today. Medicinal plants have always been used by poor communities of the African continent as an alternative for the treatment of those diseases. Typhoid fever is one of those diseases caused by *salmonella*. The aim of this study was to investigate the in vivo antisalmonellal properties of medicinal plant called *Enantia chlorantha*.

Methods: *Salmonella* typhi-infected rats daily received orally the various doses of 95% ethanolic extract of *E.chlorantha* stem bark (9.16, 36.5 and 73 mg/kg bw) or oxytetracyclin (20 mg/kg) for 9 days. Toxicity's parameters as, hematology, transaminase (ALAT, ASAT), lipids profile, urea, creatinin, total proteins, body and organs weight were assessed. Results showed that the healing effect was marked by the absence of *salmonella* in animal's blood cultured on ss agar. And this was observed after 6 days of treatment. Females and males rats recovered after 8 and 9 days of treatment respectively. The infection induced a significant reduction ($p < 0.05$) of the relative weight of male's kidney and spleen and that of female's heart; of urinary creatinin and urea, of the hepatic and kidney proteins. Significant increase ($p < 0.05$) of the white blood cells, granulocytes (in both sexes), blood platelet, transaminase and PAL activities, serum proteins, creatinin, total cholesterol, Triglycerides and LDL cholesterol was observed. The administration of extract corrected the dysfunction and lesions caused by the infection. The doses 36.5 and 73 mg/bw corrected damages with best protection.

Conclusion: The overall results showed that *Enantia chlorantha* have therapeutic virtues against *salmonella* Typhi and then the potentials as future medicines and could act as potent prototypes for the development of plant-based natural antibiotics.

Biography

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