

# THE EFFECT OF *Telfairia occidentalis* AND SELENIUM AS L-SELENOMETHIONINE ON PARACETAMOL-INDUCED HEPATOTOXIC ALBINO MALE RATS

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## ABSTRACT

The effects of *Telfairia occidentalis* supplemented diet and Selenium, were studied on some biochemical, haematological and histological indices on paracetamol-induced hepatotoxic male albino rats. Two diets named control and test feeds were prepared, with the test feed containing *Telfairia occidentalis*. The animals were divided into seven groups; three groups (1, 2 and 6) received control diet while the remaining four groups (3, 4, 5, 7) received test diet for eight weeks *ad libitum*. Paracetamol (3 g/kg b.w) was orally administered on the 8<sup>th</sup> week for 5 days to groups 2, 4, 5 and Selenium (1000 µg/kg b.w) was administered orally a day prior to the administration of paracetamol to group 5, as well as groups 6 and 7, for 5 days. Biochemical (serum protein, total cholesterol, triglyceride, reduced glutathione, alanine transaminase, aspartate transaminase, lipid peroxidation, glucose level), haematological (packed cell volume, haemoglobin and white blood cell differentials) and histological indices were then determined. This study revealed that long term consumption of *Telfairia occidentalis* significantly reduced lipid peroxidation and triglyceride levels ( $p < 0.05$ ) and significantly increased packed cell volume and haemoglobin levels ( $p < 0.05$ ). Also, the synergetic effect of *Telfairia occidentalis* and selenium significantly decreased lipid peroxidation, total cholesterol and glucose levels ( $p < 0.05$ ) and significantly increased glutathione, haemoglobin and packed cell volume levels ( $p < 0.05$ ). In conclusion, the long term consumption of *Telfairia occidentalis*, as well as the synergy of *Telfairia occidentalis* and selenium may have protection against paracetamol-induced hepatotoxicity, and thus, the masking of the toxic effect of continuous use Paracetamol.

**ANTIMICROBIAL AND PHYTOCHEMICAL SCREENING OF SEEDS AND LEAVES  
OF *PENTACLETHRA MACROPHYLLA***

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**ABSTRACT**

The antimicrobial efficacy of ethanol and chloroform extracts of leaves and seeds of *Pentaclethra macrophylla* against *Salmonella typhimurium*, *Salmonella paratyphi*, *Escherichia coli*, *Shigella dysenteriae*, *Klebsiella pneumonia* and *Staphylococcus aureus* was carried out using the well diffusion assay method. The zones of inhibition, minimum inhibitory concentration (MIC), minimum bactericidal concentration (MBC) and phytochemistry of the extracts were also determined. Results obtained revealed that the ethanolic extracts of the leaves have the highest zone of inhibition, inhibiting all isolates with diameter zones of inhibition ranging from 2 - 12 mm at 1000mg/ml, followed by unfermented and fermented ethanolic seed extract with zone range of 3 -11 mm while the chloroform unfermented seed extract (oil) had no inhibitory effect on all the isolate tested, but *E. coli* showed no resistance to the leaves and seeds extract. The extracts inhibited the growth of the bacterial isolates especially the *E. coli*. and *K. pneumonia* in a concentration dependent manner with MICs ranging between 5 - 100 mg/ml, while MBCs gave a range of 10 - 100 mg/ml. Phytochemical analysis of leaf and seeds extracts revealed the presence of phytochemicals such as tannins, alkaloids, cardenolides and steroid. Anthraquinone and phlobtannin are absent. The findings from this study provide the evidence that justifies *Pentaclethra macrophylla* as an effective medicinal plant.