

**EVALUATION OF ANTICANCER ACTIVITY OF *STEGANOETAENIA ARALIACEA*  
(CARROT TREE) BARK EXTRACT IN CANCER INDUCED MAMMARY  
GLANDS OF FEMALE SPRAGUE DAWLEY RATS**

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**ABSTRACT**

*Ethnopharmacological relevance:* *Steganotaeniaaraliacea* is a common small, aromatic, deciduous tree which is widely distributed in the rocky parts of Zimbabwe. It is used by the local population for different medicinal purposes which include; treatment of stomach aches, snake bites, the common cold, and cancer. A significant number, 40%, of registered traditional practitioners in Zimbabwe use the plant to treat cancer. *Aim:* The aim of the study was to test for the anti-tumor activity of *Steganotaeniaaraliacea* in 7,12-Dimethylbenz (a) anthracene (DMBA)-induced breast cancer in Sprague Dawley rats. *Methodology:* The anticancer activity of methanolic bark extract of *S. araliacea* was evaluated in-female Sprague Dawley rats with DMBA-induced breast cancer. Cancer was induced by subcutaneous injection of 20mg DMBA in virgin female Sprague Dawley rats. The plant crude extract was administered by gastric gavage on a daily basis for a period of 20 days. The doses administered were 0.22g/ml, in one test group, and 0.45g/ml, in the second test group. The study animals used had an average weight of 281g. Tumor size was determined before and after administration of the crude plant extract and compared against the antitumor effect of a standard drug, cyclophosphamide. After the study, the animals were sacrificed. *Results:* *S.araliacea* crude extract showed a significant decrease in DMBA induced mammary tumor size in the rats. Phytochemical screening of the crude extract revealed the presence of flavonoids, tannins, saponins, and alkaloids. *Conclusion:* The results showed that the methanolic extract of *S.araliacea* bark has the effect of reducing tumor size, however, is less efficacious compared to the standard drug, cyclophosphamide.

**KEYWORDS:** *S.araliacea*, 7,12-Dimethylbenz (a) Anthracene, Mammary Tumor, Breast Cancer & Cyclophosphamide