1. **Screening of Plants Used as Traditional Anticancer Remedies in Mkuranga and Same Districts, Tanzania, Using Brine Shrimp Toxicity Bioassay**.

**Pharmacology of Traditional Medicine**

**Background**:Traditional Health practitioners (THPs) in Tanzania are frequently contacted by some cancer patients before visiting allopathic hospitals. Ethnobotanical surveys involving these THPs could contribute to anti-cancer discovery.

**Aim**:  This study aimed to collect ethnomedical information and screen medicinal plants used for management of cancer by THPs in Mkuranga and Same Districts in Tanzania.

**Study Design**: Ethnomedical enquiry and laboratory investigation methods were employed. The enquiry involved meetings, face to face interviews and questionnaires. Brine shrimp test (BST), was done to screen plants frequently mentioned and emphasized. Methanol:Dichloromethane (1:1) was used for extraction. *Catharanthus roseus* leaf extract served as a positive control. Fig P computer program (Biosoft Inc., USA) was employed to calculate mean percentage mortality and **LC50.**

**Results**: A total of 25 plant species were mentioned. Fourteen (56%) of the mentioned plants exhibited brine shrimps toxicity as follows; *Baphia kirkii* (LC50 71.7ug/ml), *Diospyros zombensis* (67.2 µg/ml), *Ueclea natalensis* (66.2 µg/ml), *Maerua triphylla* (57.5 µg/ml), *Securidaca longipendunculata* (55.3 µg/ml), *Leucas martinicensis* (54.0 µg/ml), *Zanthoxylum chalybeum* (38.5 µg/ml), *Boswellia neglecta* (27.8ug/ml), *Cordia africana* (19.8ug/ml), *Dalbergia melanoxylon* (6.8ug/ml), *Spirostachys africana* (4.4 µg/ml), *Loranthus micranthus* (4.0 µg/ml) and *Ochna mossambicensis* (3.3 µg/ml). The LC50 of *Catharanthus roseus* was 6.7 µg/ml.

**Analysis**: In BST assay, extracts with LC50 below 100 µg/ml are considered potential candidates for anticancer activity (Moshi et al., 2006). The most promising anticancer candidates would be the most active ones; *Ochna mossambicensis*, *Loranthus micranthus*, *Croton pseudopulchellus*, *Spirostachys africana* and *Dalbergia melanoxylon*. This study received ethical clearance from the University Institutional Review Board while permission to conduct the study was obtained from local authorities in the two districts. All THPs interviewed signed informed consent. The study was funded by the Government Chemist Laboratory Authority of Tanzania.

**Conclusions**: The results support further exploration of these medicinal plants for development of anti-cancer agents**.**

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