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Medicinal plants used in treatment and management of cancer in Kakamega County, Kenya

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ABSTRACT

Ethnopharmacological relevance: Traditional medicine plays a critical role in treatment of chronic debilitating and life threatening conditions and diseases. Cancer is one such condition whose therapeutic intervention is commonly through inexpensive traditional herbal remedies. Increasingly industrialised societies are developing drugs and chemotherapeutics from these traditional herbal plants. Plant biogeography determines the abundance and availability of medicinal plants which in turn determine their use by local communities. The present study was carried out in Kakamega County of Kenya to identify and document medicinal plants used for treatment and management of cancer states by communities living adjacent to Kakamega Tropical rainforest of Kakamega County, Kenya.

Materials and methods: An ethnobotanical survey was done using semi-structured questionnaires administered to 32 randomly selected herbalists from Kakamega County.

Results and discussion: Sixty five (65) plants of 59 genera and 32 families were identified as candidates in therapeutic intervention against cancer states. Most commonly cited plant species were *Spathodea campanulata* P. Beauv. ssp. *nilotica* (Seem), *Microglossa pyrifolia* (Lam.) Kuntze, *Harungana madagascariensis* Lam. ex Poir, *Prunus africana* (Hook. f.) Kalkman, *Cyphostemma serpens* (A. Rich), *Catharanthus roseus* (L.) G. Don and *Aloe volkensii* Engl. The following were documented for the first time: *Aeschynomene abyssinica* (A. Rich.) Vatke, *Synsepalum cerasiferum* (Welw.) T. D. Penn., *Albizia coriaria* Welw. ex Oliv., *Aloe volkensii* Engl. *Bridelia micrantha* (Hochst.) Baill, *Croton macrostachyus* Delile, *Cyphostemma serpens* (A. Rich), *Dicliptera laxata* C.B. Clarke, *Ekebergia capensis* Sparrm., *Gardenia volkensii* K. Schum. ssp. *volkensii*, *Glycine wightii* (Wight & Arn.), *Ocimum gratissimum* Suave, *Olea hotchsh ssp. hochstetteri*, *Pavetta abyssinica* Fresen., *Phyllanthus fischeri* Pax, *Psydrax schimperiana* (A. Rich), *Rhus vulgaris* Meikle, *Senna didymobotrya* (Fresen.) Irwin and Barneby, *Solanecio nandensis* (S. Moore) C. Jeffrey, *Solanum mauritanum* Scop, *Spathodea campanulata* P. Beauv. ssp. *nilotica* (Seem), *Spermacoce princea* (K. Schum.) Verdc., *Tabernaemontana stapfiana* Britten, *Tragia brevipes* Pax and *Zanthoxylum gillettii* (De Wild.) P.G. Waterman. The most frequently used plant parts were fresh or dried leaves and stem barks. Administration to patients was almost exclusively oral, with the exceptions being topical application especially for breast cancer and skin sarcomas.

Conclusions: This study identified diverse medicinal plants used in therapeutic and management intervention against cancer by communities living adjacent to Kakamega Tropical Rainforest. The primary mode of administration was oral.