Medicinal plants in breast cancer therapy

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Various active compounds (or their semi-synthetic derivatives) derived from medicinal plants have been assessed for their efficacy and tolerability in the treatment of breast cancer. Some of these plant species, including *Taxus baccata* (paclitaxel, docetaxel), *Podophyllum peltatum* (etoposide), *Camptotheca acuminata* (camptothecin) and *Vinca rosea* (vinblastine, vinorelbine) have well recognized antitumor activity in breast cancer, and have been evaluated in clinical trials. For example, results from recent phase II/III trials have established docetaxel as the most active single agent in the treatment (first or second-line) of advanced metastatic breast cancer. The treatment of breast cancer, the most common malignancy among women worldwide, remains puzzling partly due to the resistance to therapeutics, which associates with the heterogeneity of case clinical presentations, and limits in the current understanding of the pathogenesis of solid cancers. Oxidative stress is closely related to various diseases, including cancer. The human body is exposed to free radicals, which cause oxidative stress. Oxidative stress may lead to gene mutations leading to carcinogenesis. Antioxidants are protector of the body, preventing oxidative stress, by stabilizing free radicals. Plants are good and cheap sources for the prevention and treatment of oxidative stress and cancer. Major drawbacks to antioxidant from plants based therapy and use in breast cancer will be shown during presentation.

Speaker Biography

Armel Herve NWABO KAMDJE is currently a Senior Lecturer/Assistant Professor at the Department of Biomedical Sciences of the University of Ngaoundere-Cameroon and the editor in chief of the Journal of Diseases and Medicinal Plants. He has a MSc in Biochemistry (University of Yaounde I-Cameroun) and a Ph.D in Human Oncological Pathology and Stem Cell Biology and Clinical Application (University of Verona, Italy). He currently works on the following topics: Cancer, Leukemia, Stem Cells, HIV, Signaling pathways, Epigenetics, Breast Cancer, Macrophages, Neural Stem Cells, Autism, FASD and Medicinal Plants.

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