

Spices to Combat Cancer

Dr. Bhavya Khullar

Nutmeg and mace plant family that are popular ingredients of spicy pickles have been identified as sources of anti-proliferative substances that can be used to combat Cancer, according to a recent study at the Central Drug Research Institute, Uttar Pradesh and Academy of Scientific and Innovative Research, New Delhi in collaboration with Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Kerala.

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Nutmeg and mace are members of the *Myristica spp.* family. In addition to their peculiar flavors, other members of this family are used in Unani and Ayurveda medicines and in antimicrobial, aphrodisiac, memory enhancer, psychotropic, hepatoprotective, anticancer, anxiogenic, and antidepressant pharmaceutical formulations.

The researchers screened and isolated five bioactive components after screening 21 compounds from two species of *Myristica* namely *M. beddomeii* and *M. fatua* that can be used to make potent drugs, some of which can also be used to combat the leading cause of mortality and morbidity worldwide- Cancer.

The researchers announce, "The present study describes the first systematic screening of twenty-one bioactive compounds and determination of five major bioactive compounds in different fruit parts of *Myristica*...". These compounds showed anti-proliferative activity when tested in five human cancer cell lines from lung, colorectal, prostate, pharynx and breast tissues using Sulphorhodamine B assay that uses a sensitive fluorescent dye to detect cell density and toxicity.

Anti-proliferative compounds inhibit cell division independent of the cell type; hence, they can be used to treat cancer that is characterized by unregulated cell growth and division. Moreover, these compounds are natural and nontoxic and thus, better alternatives to conventional cancer treatments such as chemotherapy.

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