

Review on Anticancer Effect of Selected Medicinal Plants for Gynecologic and Breast Cancer

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Cancer is the second most common cause of death for both genders after cardiovascular disease. Gynecologic cancer and breast cancer are common in the female population. Many cancer patients seek alternative and complementary treatment methods due to the serious side effects of chemotherapy, radiation therapy and high death rate with cancer. Medicinal herbs and their phytochemicals are being recognized as useful complementary treatments for cancer. Hence, an attempt was made to review the anticancer properties of medicinal plants used in the treatment of gynecologic and breast cancers. Botanical descriptions with Ayurveda properties were collected on 15 medicinal plants and cancer cell line articles were reviewed. Cell line methods and the main actions of the herbal plants such as anti-cancer, anti-tumor, anti-proliferative, anti-inflammatory, anti-oxidant, cytotoxic, apoptotic were listed. Ayurveda properties and main actions of medicinal plants were analyzed. Flueggealeucopyrus, Moringaoleifera, Aloe vera, Azadirachta indica, and Cucumis melo plants were effective in gynecologic cancers. Daturametel, Aloe vera, Phyllanthusemblica, Coriandrum sativum, Syzygium aromaticum, Vitex negundo, Azadirachta indica, Annona squamosa, Manilkara zapota, Tinospora cordifolia, Piper nigrum, and Cassia auriculata plants were effective in breast cancers. Among them 8 plants showed anti-cancer actions, 6 plants showed Anti-oxidant actions, 4 plants showed cytotoxic actions, 3 plants showed anti-proliferative actions, 3 plants showed anti-tumor actions, 1 plant showed anti-inflammatory action and 1 plant showed apoptotic action. Tikta, katu rasa, laguguna, ushnaveerya and katuvipaka were the most prominent Ayurveda properties in these medicinal plants that were effective against gynecologic and breast cancers. Further studies are required to determine the plant-derived chemical compounds with anticancer properties and the efficacy of these compounds in treating gynecologic and breast cancers.

Keywords: Gynecologic cancer, breast cancer, medicinal plants, ayurveda, anticancer agents