

Taraxacum Officinale (Dandelion) and Its Phytochemical Approach to Malignant Diseases

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Abstract : Chemotherapy and radiation use an acidified approach to induce apoptosis, which only kills mature cancer cells while resulting in gene and cell damage with significant levels of toxicity in tumor-affected tissues and organs. The acid approach, where the cells exterminated are not differentiated, induces the disappearance of white blood cells from the blood. This increases susceptibility to infection in severe forms of cancer spread. However, chemotherapy and radiation cannot kill cancer stem cells that metastasize, being the leading cause of 98% of cancer fatalities. With over 12 million new cancer cases symptomatic each year, including common malignancies such as Hepatocellular Carcinoma (HCC), this study aims to assess the bioactive constituents and phytochemical composition of Taraxacum Officinale (Dandelion). This analysis enables pharmaceutical quality and potency to be applied to studies on cancer cell proliferation and apoptosis. A phytochemical screening is carried out to identify the antioxidant components of Dandelion root, stem, and flower extract. The constituents tested for are phlorotannins, carbohydrates, glycosides, saponins, flavonoids, alkaloids, sterols, triterpenes, and anthraquinone glycosides. To conserve the existing phenolic compounds, a portion of the constituent tests will be examined with an acid, alcohol, or aqueous solvent. As a result, the qualitative and quantitative variations within the Dandelion extract that measure uniform effective potency are vital to the conformity for producing medicinal products. These medicines will be constructed with a consistent, uniform composition that physicians can use to control and effectively eradicate malignant diseases safely. Taraxacum Officinale's phytochemical composition comprises a highly-graded potency due to present bioactive contents that will essentially drive out malignant disease within the human body. Its high potency rate is powerful enough to eliminate both mature cancer cells and cancer stem cells without the cell and gene damage induced by chemotherapy and radiation. Correspondingly, the high margins of cancer mortality on a global scale are mitigated. This remarkable contribution to modern therapeutics will essentially optimize the margins of natural products and their derivatives, which account for 50% of pharmaceuticals in modern therapeutics, while preventing the adverse effects of radiation and chemotherapy drugs.

Keywords : antioxidant, apoptosis, metastasize, phytochemical, proliferation, potency

Conference Title : ICPPB 2023 : International Conference on Phytochemistry and Pharmaceutical Biology

Conference Location : Tokyo, Japan

Conference Dates : April 17-18, 2023