

Fennel as Anti Carcinogenic Agent for Breast Cancer

Abhipsa Manjaree Pati

Department of Chemistry, School of Applied Science, Centurion University of Technology and Management, Odisha

Email: 190705100028@cutm.ac.in

Abstract: The Present Study is conducted to assay the various pharmacological properties and effect of fennel Bioactive molecule on human health. *Foeniculum Vulgare* (Apiaceae) is commonly known as fennel. It is a well-known Aromatic plant having medicinal properties. Its seeds are used for flavouring in various food and beverages. Phenol, Phenolic acids, Volatile aromatic compounds just like Trans-anethole, Pentanon e, Fenchone are reported to be the major phytochemicals of fennel seeds. Phenolic compounds are responsible for the antioxidant activities. Similarly, volatile aromatic compounds are responsible for its amazing flavouring properties. It exhibits antifungal, antibacterial, antithrombotic, antidiabetic, anticarcinogenic, antioxidant properties. Fennel seeds are quite helpful in case of certain diseases like diabetes, Obesity, Different cancers. In this study we are going to analyse that how its bioactive molecules are useful in breast cancer.

Keywords: *Foeniculum vulgare*, fennel, breast cancer, anethole, bioactive compounds

Introduction

Foeniculum vulgare is the oldest valid name for fennel as it belongs to the Genus *Foeniculum* and Species *vulgare*. At first the plant is named by the Karsten as *Foeniculum foeniculturn*. By the rules and regulation of International Rules of Nomenclature, the botanical naming of fennel as *Foeniculum Vulgare* was not readily published by J. Hill in his ref. Because at that time he didn't adopt the botanical nomenclature. So, the botanical name then certified to Philip Miller. He first published it in his, "*Gardeners Dictionary*", 8th edition in 1768. From then fennel was known *Foeniculum vulgare* Mill. It is a Flowering; medicinal plant belongs to the Umbelliferae family. It is also used and known by humans since ancient times as an amazing flavouring agent. Now it is universally called as Fennel and cultivated by almost every country. Some studies show that it

has Antitumor, Antioxidant, Hepato protective, Hypoglycaemic, Chemo preventive, Crypto protective and Oestrogenic activities. Certain Experiments on animals and some clinical trials suggest that use of fennel in day-to-day life is not harmful. It can be consumed daily in the form of Salad in its seed form. In preparation of herbal tea, it is used. A diet with suitable amount of fennel could bring potential health benefits due to its valuable nutritional composition. In recent years increase interest in agricultural field of fennel seeds due to its medicinal properties and amazing flavour has encouraged the cultivation of this plant on large scale in many places in the world.

Historical background of fennel

The fennel is a hardy, highly flavourful perennial herb from Carrot family. The entire fennel plant is very useful for various purposes. As it belongs