



Review article

Plants Used as Folk Medicine for Prevention of Some Cancer Diseases¹

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Abstract

In the literature, it is seen that some plants have a positive effect on prevention and treatment of some cancer types. In the right amount, with the right plant and at the right time, using some medicinal folk plants prevented of some types of cancer. The aim of the study was to give some information of eight medicinal plants using for the treatment of some cancer types. When studies and articles which were published in last 10 years on the subject were reviewed, 25 of the plants on which most cancer research was carried out were determined. Among these plants, photographs of plants which are used extensively among the public are given, and the therapeutic effects are given by comparing them with each other. According to the results of the literature research; in the context of cancer and plant relationship, the regular use of *Matricaria chamomilla*, *Capsicum annuum*, *Brassica oleracea*, *Morus alba*, *Allium sativum*, *Malva sylvestris* and *Olea europaea* has been shown to inhibit the formation of many cancer types and prevent cancer. *Aloe vera*, *Olea europaea* and *Morus alba* has been found to be effective in the treatment of the wounds caused by chemotherapy. It is concluded that *Capsicum annuum* prevents prostate, pancreas and uterine cancer, *Brassica oleracea* prevents food borne, stomach, intestinal and breast cancers, *Morus alba* prevents lung and prostate cancers, *Allium sativum* prevents breast, esophagus, stomach, colon and rectum cancers and *Olea europaea* prevents especially pancreas, liver, stomach and breast cancers.

Keywords: Cancer, Folk medicine

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INTRODUCTION

Many diseases on the globalized world have come to the table and the number of studies about these diseases is increasing rapidly. Along with studies, the importance of preventive health services and alternative treatment methods is increasing. According to the World Health Organization (WHO) health; definition of preventive health as not having only physical or mental reasons but of individuals as having a full goodness within the scope of the definition of "a state of complete physical, mental and social well-being, not only the absence of illness or disability" but also the absence of physical or mental reasons. In communities, protective health understanding is complementary and has led to the creation of alternative medicine (Özçelik et al., 2009; Kaya, 2010). Efforts to prevent or increase supportive treatment for diseases that are increasingly common in the community are increasing the importance of herbal treatment methods in alternative treatment methods. When the alternative treatment methods of the cancer disease known as the curse of our age and the treatment methods to protect from this disease are evaluated, it is seen that many cancer pathogens are treated or prevented. This work is being done to compile and present existing information (Sarışen, 2005).

Material and Methods

When studies and articles on the subject were reviewed over the last 10 years, 25 of the plants on which most cancer research was carried out were determined. Among these plants, photographs of plants which are used extensively among the public are given, and the therapeutic effects are given by comparing them with each other.

Results

Many treatment modalities are used in cancer treatment. However, the cheapest and easiest treatment is herbal treatment. Related research continues on this subject in Turkey as well as in the world and scientists points that the nature is a source of healing (Kurt et al., 2013). As a result of the investigations, the consumption of various vitamins and minerals containing foods and plants better describes the physiological effects of these treatments. In addition, it is thought that the structure of the oncogenes is better understood, the correct supportive care is more effective in certain types of cancer and some cancers prevent it. In the study published on Cancer Epidemiology Biomarkers Prevention (2009); when evaluating 399 lung cancer and 466 healthy people, it is indicated that individuals who consume garlic 1 day a week decrease their risk of lung cancer by 44% compared to never consuming and 50% of those who consume more than 2 times a week. In addition, a meta-analysis study of Koreans in 2014 has shown that consumption of garlic has reduced the risk of stomach cancer (Kav et al., 2008).

1. Matricaria chamomilla L.



Figure 1. *Matricaria chamomilla L.*

Cancer and *Matricaria chamomilla L.* : *Matricaria chamomilla* , in breast cancer, head and neck cancers and respiratory cancers, especially as tea. Cancer is more effective in the treatment phase than cancer prevention. 1-2 cups of chamomile tea per day should be consumed. Daisy plants herd some of the receptors going to the brain after drinking tea, and it allows the person to be calmer during the treatment phase. In addition, the appearance of chamomile flowers and the cultivation of them cause the sick individuals to be loaded with hopeful feelings (Saraç, 2005).

2. Capsicum annuum L.



Figure 2. *Capsicum annuum L.*

Cancer and *Capsicum annuum L.* : According to the studies done, "red pepper", which makes the red pepper to suffer, indicates that the substance prevents many tumor growths. Capsaion asserts that the cells attack the mitochondria responsible for generating energy and destroy the cancer cells. Lycopene, especially in the pepper, is very effective against prostate, pancreas and uterus. Prostate, pancreas and uterine cancer are among these cancer types (Uğurluer et al., 2007).

3. *Brassica oleracea* L.



Figure 3. *Brassica oleracea* L.

Cancer and *Brassica oleracea* L. : Broccoli sprouts, newly emerged from the seed of broccoli, carry 50 times more sulforaphane than an adult vegetable. Sulforaphane can kill cancer cells while preventing them from growing. In clinical trials, women with breast cancer have been given foods such as broccoli, curly cabbage, white cabbage and cauliflower to reduce the risk of breast cancer by 50 percent and others have shown signs of recovery. It also contains a substance called 'indole' that reduces the risk of breast cancer in broccoli, which prevents estrogenic disorders that cause breast cancer (Kav, 2008). Broccoli has more beta carotene than carrots. Experts who emphasize that beta carotene is a powerful cancer fighter suggests that it reduces the danger of food borrowing, stomach, and bowel cancer. In particular, it contains 5 different preservatives effective against prostate and breast cancer (Kurt et al., 2013).

4. *Morus alba* L.



Figure 4. *Morus alba* L.

Cancer and *Morus alba* L. : Mulberry is considered to be one of the world's most ecological products and is rich in calcium, iron, vitamins B1, B2 and C. While the 'resveratrol' molecule in it combats the fungi that cause many products to deteriorate, it also destroys cancer cells in the body and transforms it into an anti-cancer agent (Sezgin, 2017). When mulberry is consumed together with rosehip, it has a protective effect against lung and prostate cancer. It also strengthens the mulberry-containing mulberry immune system and prevents chronic infections. There is a good antiseptic effect against mouth sores that occur during chemotherapy. The resveratrol molecule contained in the oncogenes disrupts the activating chain and removes the formation of cancer cells. For this reason, it is a good anti-cancer (Ayaz et al., 2007).

5. *Allium sativum* L.



Figure 5. *Allium sativum* L.

Cancer and *Allium sativum* L. : Garlic is a protective against breast, prostate, stomach and colon cancer. Garlic has no known side effects with being a natural antioxidant. It can be easily consumed in salads, meals or in the mezzanines. It prevents dead and tumor cells from accumulating due to the substance they contain and thus prevents metastasis. In addition, antidote acts as an antidote to reduce the side effects of chemotherapeutic drugs and protects cell tissue integrity. After the treatment, it appears that the burning tissue is improving when touching the water (Ayaz et al., 2007). It provides the reproduction of interferon that is fighting against cancer. At the end of the researches, it has been found that the nitrates found in garlic powder as additives in foods and beverages inhibit the transformation into cancer-causing compounds in the body, such as N-nitrosoamines; it was also found to have an effect on cancers caused by radiation. It is argued that regular use is a preventive effect on bowel cancer. All these anticancer effects are thought to play a role in the immune system that the garlic strengthens (Topuz, 2010). The investigations have determined the effect of garlic on carcinogens causing breast, esophagus, stomach, colon and rectum cancers (Saraç, 2005).

6. *Malva sylvestris* L.



Figure 6. *Malva sylvestris* L.

Cancer and *Malva sylvestris* L. : It is quite abundant in terms of the hibiscus sodium, which is found to contain calcium, iron, magnesium, phosphorus, potassium, selenium and sodium. The consumption of tea as a tea in hibiscus cancer patients, which is good for skin and hair, supports the increase of hemoglobin levels. However, the hibiscus should not be consumed for more than 1 week. It can be given for at least 15 days and again for 1 week. A maximum of 3 glasses per day is required (Topuz, 2012). Apart from increasing blood values, boiled water is a good antiseptic and wound healing agent for mouth wounds that occur during cancer treatment. It is also an anti-inflammatory that can prevent infections that can occur by using drug toxicants that accumulate in the liver (Özçelik et al.,2009).

7. *Olea europaea* L.



Figure 7. *Olea europaea* L.

Cancer and *Olea europaea* L. : Olive A, C, E vitamins, protein, calcium, chlorine, sulfur and valuable minerals are found. Olive oil also contains glycerides of oleic, palmitic, stearic and linolic acids, hydrocarbons and vitamin E. Chronic oxidative stress and chronic inflammation are important factors in the development of cancer. Because olives have antioxidants and anti-inflammatory properties, they form a natural protection against cancer. Also important for olive DNA is one of the very rare foods (Topuz, 2012). Olive oil especially prevents the formation of pancreas, liver, stomach and breast cancer. Olive oil protects tissue integrity and accelerates wound healing in organs, preventing carcinogenic content and infection. Olive leaf strengthens the immunity system and reduces the risk of the individual getting other diseases during treatment (Saraçoğlu, 2008). Olives prevent damage to the bones after chemotherapy or radiotherapy. Because when olives are consumed regularly, it strengthens the bone structure and reduces the feeling of fatigue by decreasing fatigue feelings (Topuz, 2012).

8. *Aloe vera* L.



Figure 8. *Aloe vera* L.

Cancer and *Aloe vera* L. : Aloe vera plant is a high-grade antioxidant source. In the gel part of the leaf, there are 18 amino acids, 12 vitamins, 20 minerals and various enzymes. This plant is under the title of "Selected Medicinal Plants" by the World Health Organization and is called "medical yellow patience plant" among the people. The genus *Aloe Barbadensis* Miller is used for the treatment of arid climate plants, of African origin and about 240 types. It is understood that documents in Egypt, dating back to the 1500th millennium BC, were used in wound and burn treatment in ancient times (Ayaz et al., 2007). During cancer therapy, chemotherapeutic drugs and radiotherapy, in particular, protect vital tissues and maintain tissue integrity in eliminating damage to tissues that are directly exposed (Başgöl, 2014).

Conclusions

Many methods are used in the treatment of cancer from the past to the present day. One of them is herbal treatment from alternative treatment methods. Some studies have shown that some plants reduce the risk of cancer and others, which shortens the duration of treatment, also reduce the complications that occur during the course of the treatment. It is known that *Matricaria chamomilla* is effective when it is used especially as tea in breast cancer, head and neck cancer and respiratory cancers but it is more effective in cancer treatment stage, it is known that the "capsule" ingredient which makes the red pepper be painful inhibits the growth of many tumors and it treats 1-2 pepper cats consumed daily, *Aloe vera* treatment of cancer, especially in chemotherapeutic drugs and radiotherapy, eliminates damage to tissues that are directly exposed, allows vital tissue to develop and maintains the integrity of the tissue, the sulforaphane contained in broccoli can prevent cancer cells from growing and kill them, garlic is protective against breast, prostate, stomach and colon cancers, for mouthwashes that occur during cancer treatment of hibiscus, the boiled water is a good antiseptic and wound healing agent, olive oil prevents the formation of pancreas, liver, stomach and breast cancers and prevents damage to the bones after olive, chemotherapy or radiotherapy.

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