**REVIEW ARTICLE** 

# **Combined Approach for Treatment of Cancer w.s.r to Dietary Recommendations**

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#### Abstract

Cancer is the most dreadful of all the diseases. Typically growing in the form of tumors, new tumors emerge as cells take root and grow in different parts of the body. Classical *ayurvedic* texts have several references to cancer. It combines a number of approaches such as changes in lifestyle, herbal remedies, exercise and meditation to strengthen and purify the body and mind and increase spiritual awareness. Herbs offer great potential to stimulate the healing process and can even destroy cancer cells. Dietary patterns, foods, nutrients and other dietary constituents are closely associated with the risk for several types of cancer. Evidence suggests that diets high in fiber containing foods, rich in fruits, vegetables and grain products, carotenoids, vitamin C are associated with a reduced risk for cancer.

## Keywords

Cancer, Diet, Karkinos, Treatment



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#### INTRODUCTION

Patients with cancer have three basic options for treatment. The first and the most conventional treatment utilizes chemotherapy, surgery and radiation. Second choice of treatment is a wide range of alternative therapies and third is a combined approach. Conventional treatments for cancer have varying success rate. At the diagnosis or when cancer is in initial stageconventional therapies do have a high success rate with decreases in success the cancer progresses. Alternative as medicines offers many possible therapies, ranging from dietary changes, use of herbs and nutritional supplement to psychic, crystal and energy healing, visualization therapies, pray and meditation, light and colour therapies and much more. Some patients and practitioners choose to integrate conventional and alternative therapies. Therefore, a combined approach should be adopted to tackle this problem which is spreading worldwide every year. Cancer is derived from the Greek word karkinos which means "crab". Cancer may arise in any tissue of the body that is composed of potentially dividing cells. The cells in which cancer occurs show two characteristics.

• Grow uncontrollably (continue to grow and divide)

• They no longer carry out the specific body task for which cells normally exist.

As the cancer grows the host suffers adverse effects caused by invasive growth in the original tumor site or by metastatic spread to other site in the body. There are about eighteen lakh cancer patients in India, nearly six lakh cancer cases are diagnosed every year in India, and about four lakh die. It is caused by various factors such as chemical carcinogens, tobacco smoking and chewing, alcohol, high fat diet, food lacking adequate proteins, dietary deficiency of various vitamins and minerals promotes cancers in various part/organs all over the body.

#### VARIOUS APPROACHES

For treatment of any disease, a doctor as well as a patient plays as important role. Studies have shown that the role of the mind and the disposition of the patient are important to the final outcome of any treatment. The more the doctor knows about the type of cancer and the available treatment the more they can educate their patients.

On the other hand patients must also be willing to undergo lifestyle changes, the hardest and most powerful part of the healing process. Changes in lifestyle can remove and break the offending pattern of action that brings about imbalance. This in turn creates a new form of suffering. This is called *tapas*-the process of going up attachments that ultimately provides the patient with new power which is the most potent forced of healing.

# AYURVEDIC APPROACH TO HEALING

The fundamental theory of ayurvedic treatment is based on the balance of vata, pitta and kapha. Within the bodies, these philosophical "regulatory energies" are represented by three major bodily systems, the nervous system and the arterial system. These three regulatory systems are found to connect to every internal organ, as well as the organism as a whole. This is tridosha siddhanta. Ayurveda approaches the patient on several levels of causes, including physical, emotional and spiritual. The most superficial level is approaching the symptom, which is the tumour itself.

On the most superficial physical level are herbs that can reduce tumor growth and perhaps limits metastasis. Herbs can be taken internally or applied over the tumor as a paste, acting directly on the cancer and supporting a deeper healing when used in accordance with the patient's *vikruti*.

#### THE MENTAL LEVEL

Mental and emotional challenges produce blockages in the flow of energy in the physical body. The physical body is capable of manifesting what the mind imagines. Unhealthy imaginings appear first in the dream body and can eventually manifest in the physical body as disease. Healing begins with the purification of the mind. Periods of silence and a lack of sensory stimulation are the best methods of purifying the mind and can be supported through the use of herbs such as brahmi, tulsi and calamus. In addition to the internal use of these herbs, shirodhara can help produce inner silence while tarifying the mind. Nasya supports mental purification. Studies have also shown that positive thinking activates the immune system and supports healing.

#### THE SPIRITUAL LEVEL

Our spirit is essentially pure, perfect and is not truly in need of healing. However, it is bound to the cycle of birth and death through the *karma* generated by the actions of our ego. Spiritual healing is the process of removing or healing our *kama*, which plays a role in all diseases. Cancer has a cause while some of those causes are exogenous, other are endogenous arising from within. They originate in the samskaras deeply imbedded within our cousciousness and manifest in part through our genetics and in part through the desires (vasanas) that generate our actions. Our genetic predisposition combine with the choices we make to bring about our challenges. In this case, the challenge is cancer. So spiritual healing is the healing of these samskaras and the underlying karma that generated it. In doing so, cancer magically seems to disappear.

Another method in this series is that of power of visualization. Practice of visualizing a positive outcome by sitting quietly for about 15 to 30 minutes affect our immune system and increases chances of survival.

#### SATTVIC HEALING PRACTICE

*Sattvic* practices are important for keeping the mind clear and supporting the healing process. A clear mind reflects the light of god. *Sattvic* practices also assists in the healing of *karma*. Meditation is the king of all *sattvic* practices of which *yoga asana* is the queen of *sattvic* practices and is among the most transformative practices a person can engage in. Gentle motions reducing tension and inner restrictions combined with diaphragmatic breathing makes *yoga asana* a perfect metaphor for flowing with nature, allowing the energies to course through us, removing blockages and promoting healing.

Cancerous patients benefit by reducing stress and engaging in activities like spending more time in nature, taking walks in the forest or by the sea side and should be encouraged to pursue their love of art, music, writing and other forms of selfexpression and be surrounded by loving friends and family.

# AYURVEDICDIETARYGUIDELINESFORCANCERPREVENTION

Ayurveda concentrate on the source of the disease using natural treatment to eliminate the root cause and promote the patient's inherent self-healing abilities by improving immunity. The most extreme example of illness caused by lack of purpose is cancer. Ayurveda considers cancer an emote the combination of diet, lifestyle and medicine play an important role in the prevention and treatment of the cancer. It can improve health and help prevent serious illness through simple dietary changes, lifestyle

changes and purification techniques that restore balance to your body.

1. The exact diet a patient with cancer should follow depends upon their *prakriti*, *vikriti*, state of *ama*, *agni and ojas*. The practitioner must make decisions based upon sound reasoning allowing some room for intuitive creativity.

2. Consume plenty of foods full of *prana* (life-force) whole, fresh, sun-ripened, enzyme-rich, alkalizing, organic and mostly plant based.

3. Avoid processed foods, refined flour products, hydrogenated fats, fast food, excessive low-quality meat and dairy, micro-waved food and leftovers. These foods are *tamsic* in nature and according to *ayurveda* clog the channels and upset normal bodily functions.

4. Eat low glycemic foods that have low sugar content.

5. Eat dark green leafy vegetables and fruits because they contain phytochemical known to reduce incidence of cancer. Some of these phytochemicals and the foods they are found in include: sulforaphane(cauliflower), p.coumaric acid(tomatoes), genistein(soybeans),capsaicin (chill peppers) and flavanoids (citrus fruits). 1. Discover your unique body-mind constitution and use herbs, spices and foods according to your unique individual needs.

2. Do the *abhyanga (ayurvedic* selfmassage) every morning, which will stimulate the lymphatic system to eliminate toxins.

3. Some other healthy eating habbits include saying grace before eating, avoiding too much water with meals, chewing food properly, combining foods appropriately and resting for a while after eating.

4. There are many ayurvedic herbs such as *amla*, *ashwagandha*, *triphala*, *guduchi*, *holybasil*, *neem*, *shatavari*, *and brahmi* etc have anti-carcinogenic properties and should be judiciously used for preventing cancer.

#### SPICES FOR CANCER PREVENTION

Spices not only lend irresistible aromas and flavours to dishes, but have potent cancer fighting properties. A few examples of powerful cancer fighting spices:

#### **Turmeric:**

Curcumin inhibit tumor promoting enzymes and interfere with the growth of cancerous tumors. As a powerful antioxidant, curcumin neutralizes free radicals that increase the risk of cancer or heart diseases.

#### **Rosemary:**

Rosemary has potent cancer fighting properties by blocking carcinogen-binding to DNA and modifying metabolic enzymes to decrease the toxicity of a carcinogen.

#### **Ginger:**

It not only kills cancer cells, it also prevents them from building up resistance to cancer treatment.

#### **Coriander:**

Coriander seeds significantly improve digestion and are a good choice for people high in pitta. Coriander, rich in coriandrol, helps combat breast and liver cancers. Fresh coriander is known as cilantro, and is particularly powerful in detoxifying the body of heavy metals, such as lead or mercury.

#### Fenugreek:

In recent researches, fenugreek seeds were experimentally shown to protect against cancers of the breast and prostate cancer, bone cancer. Both the seeds and the fresh leaves are good for blood sugar and fat metabolism, prevent hair loss and are beneficial for the bones.

# PHYTOCHEMICAL AND ANTIOXIDANT NUTRIENTS VITAMINS

It is generally accepted that diets rich in fruits and vegetables reduce cancer risk.

• Vitamin. A stimulate the immune system, fights infection, and maintains the structural integrity of cells by allowing their genetic materials to split property.

• Higher dietary intake of beta carotene is associated with a diminished likelihood of several cancers, particularly lung, stomach and breast cancer.

• Vitamin. C protects against radiationinduced chromosomal damage in mice.

• A combination of vitamin E, C and A reduced the toxic effects of radioimmunotherapy in mice.

• Vitamin. E and C supplements for up to one year and improvements were reported in side effects, such as bleeding and diarrhea.

#### FIBERS

The fibres found in our plant food are cellulose, hemicellulose, lignin, pectins, gums and mucilage. These varying ingredients are obtained from whole grains, fruits and vegetable. Some of these fibres are water-soluble and others are insoluble in water. Foods high in soluble fibre include barley, flax meal, oats, oatbran, citrus fruits, apples, carrots and beans. Insoluble fibre is high in wheat bran, corn bran, celery and the skins of fruits and root vegetables. Some scientists now believe that most of the protective benefits that fibre has against colon cancer come from the consumption of water-soluble fruits and vegetables rather than from cereal foods.

• A high-fibre diet usually has a lower content of fat and a higher content of antioxidant vitamins; which may protect against breast cancer.

• Many plants and vegetables contain isoflavones and lignans, which are capable of being converted into weak estrogens in the bowels. These then compete with oestrogen for binding sites in the breasts and other areas of the body and generally reduce the risk of oestrogen-sensitive cancers

• Apples have more pectin than any other fruit.they are high in flavanoids and quercetin,the combination of which makes them exceptional cancer-fighters. They have an impressive ORAC value(oxygen radical absorbance value),which means they render potentially cancer-causing free radicals harmless.

#### CAROTENOIDS

Beta-caroteneis being particularly said to bestrongly associated with reduced cancer risk. It is this carotenoid that is most widely distributed in fruits and vegetables, and this means that blood levels of it are perhaps the best available biomarker of the consumption of such foods. Thus, beta carotene levels become a rough indicator for the entire carotenoid family, which may include just the cancer preventive substances.

Carotenoids help to maintain cell differentiation. Healthy cells in the body become differentiated to perform particular tasks. They may be muscle cells or digestive tract cells or skin cells. It is a characteristic of cancer that the cells that make it up lose differentiation and become useless for any purpose except the deadly one they have evolved to perform.

#### LYCOPENE

Lycopene is the red pigment found in tomatoes, carrots, apricots, paprika, pink grape fruit and watermelon. Lycopene seems to be one of the most powerful antioxidants in the human diet and a vigilant cancer fighter. Researchers have demonstrated that overall, it exhibits the highest rate of all carotenoids for quenching singlet oxygen, a particularly virulent form of free radical. Few people are aware that lycopene's antifree radical activity is roughly double that of beta carotene. This almost certainly has some role in its well-attested capacity to lower levels of breast, lung, endometrial, cervicaland prostate cancers of the digestive tract from mouth to anus.

Nutritionists usually advice to eat fresh fruits and vegetables and eat them raw when possible. The digestive system can extract only a limited amount of lycopene from fresh tomatoes because the pigmented carotenoid is locked in a matrix of proteins and fibre. Cooking breaks down the cell walls and frees the carotenoids. Lycopene inhibited the growth of those cells, basically by slowing the rate of their division.

#### GINSENG

Ginseng, the famous star of oriental herbalism, has role in cancer prevention. Ginseng showed the most protective effect against cancer of the ovaries, larynx, oesophagus, pancreas and stomach. There seemed to be no significant effect on breast, bladder, thyroid and cervical cancers. Ginseng is a phyto-oestrogen and it may occupy oestrogen receptor sites. In the process, it may cause certain favourable estrogenic changes in the body that have been associated with decreased breast cancer risk. Indeed, along the lines already observed in soy foods, ginseng may prove to be an important antagonist to breast cancer.

#### DIETARY RECOMMENDATIONS

The American cancer society has recently developed dietary recommendations as follows:

1. Avoid obesity

2. Reduce total fat consumption

3. Eat more high-fiber foods like whole grain cereals, fruits and vegetables

4. Include foods rich in vitamins A and C daily

A. Vitamin-A- Dark green, deep yellow vegetables and fruits like spinach, carrots, apricots.

B. Vitamin-C: Orange, grapefruit,

strawberries, green and red bell peppers.

5. Include cruciferous vegetables regularly (cabbage, broccoli, Brussels, sprouts, cauliflower etc.)

## CONCLUSION

Cancer is a sign that our internal environment is out of balance. Prevention is the key. The time has come to give more energy to preventative measures and educating people on ways to live healthier lives. The ancient wisdom of *ayurveda* that can easily be applied by everyone enhances the health and immunity in such a way that cancer does not even have a chance.

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