



Ayurvedic approach in improving the quality of life in cancer patient – Complementary and Alternative therapy

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Abstract

According to the WHO, one of the most lethal diseases impacting people in the 21st century is cancer. The treatments that are accessible, such as chemotherapy and radiotherapy, have cytotoxic effects that are harmful to the patient's healthy cells and result in negative side effects. This further causes problems with the therapy, deteriorates health, and lowers the quality of life, necessitating the treatment's end. Ayurveda can be beneficial for the treatment of cancer in a variety of ways, including supportive, curative, palliative, and curative aspects. Through a variety of pharmacokinetic mechanisms, Ayurvedic drugs aids in enhancing patients quality of life. Due to their medicinal effectiveness and few side effects, herbal medications are frequently used and have been shown to have anticancer effect. We may summarise the most recent research findings on plants like *Amalaki*, *Guduchi*, *Ashwagandha*, *Yasthimadhu*, *Tulsi*, and *Pippali* by using the scientific data found in electronic databases and ancient Ayurvedic writings to possess anticancer activities. The use of Ayurveda as an adjuvant therapy in the current study has been assessed as a means of saving patients from the side effects of contemporary therapies and to improve the quality of life of Cancer patients.

Keywords: *Cancer, Ayurveda, Arbuda, Ayurvedic drugs.*

Introduction

Cancer has been identified as the second-most common non-communicable disease, following ischemic heart disease¹. Surgery, radiation therapy (including photodynamic therapy), chemotherapy (including hormonal therapy and molecular targeted therapy), and biological therapy are all part of the cancer treatment protocol (including immunotherapy and gene therapy). Chemotherapy and radiotherapy are both extremely toxic, they both damage adjacent healthy cells, resulting in unwanted side effects that affects the quality of life of the cancer survivors resulting in treatment discontinuation.

Adverse effects of chemotherapy and radiation therapy range from acute (occurring within a few weeks of treatment) to intermediate or late (occurring months or years after treatment) effects. However these effects can be reduced by the administration of Ayurvedic medicine.

Commonly reported side effects of chemotherapy are: nausea, vomiting, diarrhoea, alopecia, constipation etc². Radiation therapy is administered locally, but also produces systemic harmful effects like fatigue, anorexia, nausea, vomiting, alteration in the taste, sleep disturbance, headache, anaemia, dry skin constipation etc³.

In Ayurvedic perspective, the adverse effects during chemo-radiotherapy can be better understood as aggravated *Pittadosha*, and closely related to disorders like *Raktapitta* (haemorrhage) or *Raktadushti* (vascular inflammation).

Chemotherapy and radiotherapy also affect many types of healthy cells along with targeted cancer cells, especially rapidly-dividing ones. This includes cells that help the body to function normally such as blood cells. This may be due to the inadequacy of most of the radio-protectors and chemo-protectors in controlling the undesired harmful effects during these two therapies.

Objectives

- To explore the role of Ayurveda in improving the situation of the Cancer patient during treatments.
- To highlight the proven Ayurvedic drugs in treatment of cancer.

Materials and Method

The literature on Cancer, its Ayurvedic perspective, various types of treatment specially chemotherapy and radiotherapy with adverse effects and role of Ayurveda in dealing them are collected from all available classical and modern texts, this article is searched and referred from search engines like Google and available research publication from the Institute library. With the help of ancient literature, data has been studied, reviewed, and the appropriate conclusions have been withdrawn. Various terms used mentioned in ancient literature have been correlated and understood.

Review Literature

Ayurveda and Cancer:

In Ayurveda classics, cancer can be understood as inflammatory or non-inflammatory swelling which can be co-related with *Arbuda* (major neoplasm). *Arbuda* is a lump or mass which are gradually increasing mass of big size, globular in shape, fixed with deeper structure, usually do not suppurate, giving occasional pain and can occur in any part of the body.⁴ It can involve the *Mamsa* and *Rakta dhatu* due to the vitiation of *tridosha*. *Arbuda* are based mainly on *Dosika* theory i.e. *Vata*, *Pitta* and *Kapha*. Further by *Mithya Ahara* and *Vihara* the three *dosas* are vitiated involving different *Dhatus* (*Mamsa*, *Meda*, *Rakta*, etc) resulting in the precipitation of *Arbuda*. Though vitiated “*Dosa*” are responsible for the development of *Arbuda*, almost all Ayurvedic texts have given maximum importance to *Kapha*. Acharya Susruta has mentioned that due to excess of *Kapha*, *Arbuda* does not

suppurate, which is considered to be the common and important factor for any growth in the body⁵. Irritation and trauma may precipitate or activate the formation of *Arbuda*. According to Susrutacharya, trauma is also considered to be another causative factor for the development of *Mamsarbudha*, whereas Vagbhatacharya has described that whenever, there is excessive formation of *Mamsa dhatu* it may lead to various pathological conditions such as *Galaganda*, *Gandamala*, *Arbuda*, *Granthi* and *Adhimamsa*.⁶ It indicates that *Mithya Ahara* and *Mithya Vihara* probably changes local or systematic bio chemical factors including the haemodynamics leading to the origin of *Arbuda*.⁷

Common Cancer Complexities

Cancer is an incredibly diverse disease, and the various types of cancer that arise in different organs often behave very differently or unpredictably. Cancer also depends upon the condition of the patient and how the tissue surrounding the cancer cells reacts to the cancer cells and the treatment. A cancer diagnosis devastates the patients, their families, and their friends, and usually there is a natural tendency to think that there is no hope. Dealing with shock, disbelief, anxiety, fear, anger, grief, and a sense of loss of control, are normal responses to this difficult experience, and self-doubt about their original treatment decisions or choices.

Anxiety and Fear

People are extremely scared of cancer as they have seen or heard people suffering and dying from it. They refuse discussing their cancer with anyone and they seek help from an expert (Physicians) only in their final stages. This creates a mind-set of fear and hopelessness among them, and consequently, many patients give up. Cancer, on the other hand, has the best chance of being cured or increasing life span and quality of life when detected early. All of this, however, necessitates patience and regular follow-up with the sick.

Knowledge about the treatment of cancer is multidisciplinary and varies according to the organ involved and stage of cancer. The patient must have full knowledge of the treatment plan that the doctor is going to implement this may help reduce some fear and anxiety.

Ayurvedic Treatment and Cancer

Researchers have found that some Ayurvedic treatments can help relieve cancer symptoms. The researches conducted found that some of the Ayurvedic medicines help in slowing down the growth of cancer. Cancer treatment in Ayurveda works on improving the quality of life of the patient through rejuvenation (*Rasayana karma*) and improving the immunity of the person. The main goal of Ayurvedic therapy is to find the ultimate cause of an illness while the therapeutic approach of Ayurveda is divided into four categories as *Prakritisthapani chikitsa* (health maintenance), *Rasayana chikitsa*, (restoration of normal function), *Roganashani chikitsa* (disease cure) and *Naishthiki chikitsa* (spiritual approach).⁸

Commonly used herbal decoctions reported in Ayurveda are made of multiple herbs possessing great potential for a cancer cure, scientifically these formulations work on

multiple biochemical pathways and influence different organ systems all together and nourish the body as a whole by supporting body's defence systems.⁹ Herbs help total healing, reduces the side effects and cancer-associated complications.¹⁰ According to classic Ayurvedic texts, *Rasayana* therapy can slow the aging process and enhance immunity, intelligence, memory, strength, youth and vitality. These herbs are purported to nourish the tissues of lymph, blood, muscle, adipose tissue, bone, nervous and reproductive systems, prevent degeneration and illness, and have been effective as radio-protective and chemo-protective agents.¹¹ Many of the herbs have been evaluated for their use in the mitigating side effects of cancers treatments and enhancing immunity.¹

Following are some of the plants which have been evaluated for their use in combating the side effects of cancers treatments and enhancing immunity –

Anticancer Mechanisms of Common Ayurvedic Herbs

Curcumin/ <i>Haldi</i> (<i>Curcuma longa</i>)	Reviews details of modulation of pathways of cell proliferation, cell survival, caspase activation, tumor suppressor, death receptor, protein kinase, and mitochondrial pathways. ¹³ Reviews the role in the protection of cancer as well as neurological, cardiovascular, and gastrointestinal diseases mainly through anti-inflammatory and antioxidant action. Also addresses antiviral and antiparasitic potency of curcumin (in vitro and in vivo). ¹⁴ Role in prevention of cancer progression. ¹⁵
Tulasi (<i>Ocimum sanctum</i>)	Provides a radio-protective effect when given intra-peritoneally. ¹⁶
Guduchi/Amruta (<i>Tinospora cordifolia</i>)	Has also shown its potent radio-protective effect. ¹⁷
Pippali (<i>Piper longum</i>)	Helps in producing marked salivation in the mucous membrane of the mouth, which is useful in managing xerostomia. ¹⁸
Triphala: Haritaki (<i>Terminalia chebula</i>), Bibhitaki (<i>Terminalia bellirica</i>), Amalaki (<i>Emblica officinalis</i>)	Has anti-cancer, chemo and radio protective properties, as well as antioxidant and antiemetic properties. ¹⁹
Yashtimadhu (<i>Glycyrrhizaglabra</i>)	Possesses anti-ulcer activity and stimulates the regeneration of skin. ²⁰
Ashwagandha (<i>Withania somnifera</i>)	Exhibits adaptogenic, immune-stimulating, and anti-mutagenic effects. ²¹

Discussion

In conventional line of treatment initially, chemotherapy acts as a therapeutic dose and destroys the neoplastic cells during the cycles, but further treatment causes damage to healthy tissues. The body fails to eliminate the excess chemo drugs, resulting in a build-up of these chemicals in the body and the subsequent unwanted side effects. In radiation therapy, the ionisation of the water content of the cells will produce peroxide and other toxins that cause toxic effects on the body. In radiation, there will be "*pitta*" vitiation and associated symptoms. All the adverse effects of radiotherapy and chemotherapy resemble the *lakshanas* of *Ama*, *Gara*, and *Dooshi visha*.²²

The nutritional status of patients also has an important impact on the efficacy of the cancer treatment. Malnourished patients are at higher risk of infection because of their compromised immune systems. Malnutrition may exacerbate the side effects of chemotherapy and radiation therapy. The cancer anorexia–cachexia syndrome,²³ one of the most common causes of death in such patients, can also be managed by Ayurveda because it aids in improving the nutritional status through cell nutrition, which is diminished in this disease due to metabolic dysfunction. Hence, in chemotherapy and radiotherapy, Ayurvedic medicines can be prescribed that work synergistically to produce therapeutic benefits while lowering the risk of adverse effects.

The adverse effects of radiotherapy and chemotherapy can be avoided or minimised by using *Vata Pitta Shamaka*, *Kapha Ojas Vardhaka*, and *Rasa Rakta Prasadaka* herbs. Most *Rasayana* drugs, particularly *Balya*, *Brimhana*, *Shramahara*, and *Jeevaniya*, may be beneficial in the treatment of these conditions. Most commonly used proven drugs in the treatment of cancer can be administered on the basis of the Ayurvedic principles of *Agada* (anti-toxic to combat chemo-induced side effects) and *Dagdha Chikitsa* (anti-burn to combat radiation-induced side effects).

Steps to battle cancer

- Knowledge about cancer, which helps reduce some fear and anxiety.
- Share the feelings honestly with family, friends, a spiritual adviser, or a counsellor about the myths and facts regarding the disease and treatment, and seeking support from them.
- Talking to other people affected with cancer, thus sharing their experiences and insight into what to expect during the treatment.
- Maintaining a positive attitude and hope about the chosen treatment options.
- Having faith in medical team and the other people involved in caring for the patient by Continuing and completing the advised treatment, following regular follow-up and check-ups such as imaging scans, lab tests, and biopsies.
- Following a balanced diet prepared with seasonal vegetables and fruits suitable for digestive capacity.

- Staying physically active through various forms of exercise and yoga as per the patient's capacity or strength.
- Maintaining a sound mental well-being by means of meditation and mind-calming activities like breathing exercises (pranayama), finding sources of positive thoughts and spiritual support, remaining involved with work and leisure activities.
- Spending time with friends and family for emotional support.

Fighting cancer is a series of little battles. Focusing on the experienced victories of each day will help the survivors to start thinking like a survivor instead of a victim.

Conclusion

As mentioned, a cancer diagnosis can affect the emotional health of patients which brings in fear and anxiety. Hence, proper awareness of the disease and mental support can encourage the patients to seek treatment which can arrest the disease when detected and treated at an early stage.

Along with the conservative treatment of Cancer, we can improve the quality of life of the patients by various Ayurvedic herbs and medicines. Ayurvedic medicine for cancer may help people to combat serious adverse effects due to these conservative treatments and aid in the quality of life of the patient, thus enhancing their life expectancy. In a nutshell, Ayurvedic approach in cancer is an effective adjuvant therapy.

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