A systematic review on cancer therapy in ayurveda

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Abstract
Aim: The aim of the article is to do a systematic review on cancer therapy from perspective of Ayurveda.
Objective: To find out whether cancer can be completely cured through Ayurveda.
Background: Ayurveda has two main aims one is to maintain health and the second is to cure disease. Ayurveda is derived from 2 Sanskrit words, namely, “Ayus” and “Veda,” meaning life and knowledge, respectively. It literally means science of life. Ayurveda, of which yoga is an integral part, is widely practiced in India and is gaining acceptance in many countries around the world. It is a comprehensive and a holistic system, the focus of which is on the body, mind, and consciousness. The Ayurvedic treatment consists of the use of herbal preparations, diet, yoga, meditation, and other practices.

Keywords: Cancer, Ayurveda

INTRODUCTION
Ayurveda, the science of life, (Ayus=life; Veda=science) is a part of the ageless Vedic heritage of India. Speculations about its origin go back thousands of years before Christ.

Ayurveda, the oldest Indian indigenous medicine system of plant drugs is known from very early times for preventing or suppressing various tumors using these natural drugs. And nowadays scientists are keener to researches on complementary and alternative medicine for the management of cancer.(1,2)

Cancer is one of the most dreaded diseases of the 20th century and spreading further with continuance and increasing incidence in 21st century. In the United States, as the leading cause of death, it accounts for 25% of all the deaths in humans presently.

An integrated approach is needed to manage cancer using the growing body of knowledge gained through scientific developments. Many herbal and traditional compounds are being researched worldwide to validate their use as anti-cancerous drugs.

Review of literature on anticancer drugs of plant origin revealed identification of newer ayurvedic drugs that are not mentioned in the ancient texts. These new researches add up to ayurvedic science that has been developed through ages. In addition, details of experimental and clinical studies conducted on single and compound ayurvedic preparations for their anticancer efficacy strongly emphasize ayurvedic therapy as a scientifically motivated one and not simply unconventional.(3)

Any practical solution in combating this dreadful disease is of paramount importance. An alternative solution to western medicine embodied with severe side effects is the use of medicinal plant preparations to arrest the insidious nature of the disease. (4) Many herbs have been evaluated in clinical studies and are currently being investigated phytochemically to understand their tumoricidal actions against various cancers.

Complementary Medicine Health Approach

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<th>Percentage of Adults who used Complementary Medicine</th>
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Charaka and Sushruta samhitas, two well-known Ayurvedic classics, describe cancer as inflammatory or non-inflammatory swelling and mention them as either Granthi (minor neoplasm) or Arbuda (major neoplasm). Ayurvedic literature defines three body-control systems, viz., the nervous system (Vata or air), the venous system (Pitta or fire), and the arterial system (Kapha or water) which mutually coordinate to perform the normal function of the body. In benign neoplasm (Vataja, Pittuja or Kaphaja) one or more of the three bodily systems are out of control and is not too harmful because the body is still trying to coordinate among these systems. Malignant tumors (Tridosaja) are very harmful because all the three major bodily systems lose mutual coordination and thus cannot prevent tissue damage, resulting in a deadly morbid condition. (5,6,7)

**DISCUSSION**

Prakruthi assessment, part of Ayurveda, can identify the dosha predominance in an individual and may potentially predict the increased probability of illness which may give opportunities for prevention and early detection of diseases in future.

Herbs help healing, reducing the side effects and in cancer-associated complications. Andrographis paniculata, Annona atemoya, Phyllanthus niruri, Piper longum, Podophyllum hexandrum, Tinospora cordifolia, Semecarpus anacardium, Vitis vinifera, Baliospermum montanum, Madhuca indica, Pandanus odoratissimum, Pterospermum acerifolium, Raphanus sativus, Barleria prionitis, Prosopis cineraria, Amorphophallus campanulatus, Oxyolium indicum, Basella rubra, Flacourtia romanti, Moringa oleifera, Ficus bengalensis, Curcuma domestica, Allium sativum, Calotrops gigantean, Datura metel, Hygrophiia spinosa, Janiperus indica, Moringa oleifera, Niellia sativa, Picrorhiza kuruoa, Rubia cordifolia, etc - are various plants having scientific evidence of anticancer property. Nowadays, many herbs are under clinical studies and being investigated phytochemically to understand their anticancer potential. More than 25% of drugs used during the last 20 years are directly derived from plants, while the other 25% are chemically altered natural products. Nine plant-derived compounds including vinblastine, vincristine, etoposide, teniposide, taxol, navelbine, taxotere, topotecan and irinotecan have been approved for use as anticancer drugs. (8,9)

Cancer chemotherapy, particularly with multiple drugs and as part of multimodality treatment, can cause excessive vomiting, gastritis, mucositis, negative nitrogen balance, anemia, neutropenia, thrombocytopenia, and weight loss in patients. (10,11,12). Ayurvedic preparations which contain deepana and pachana (which improves GI function) drugs such as dried ginger, pepper, panchakola powder, can be used along with the diet of the patients to control the symptoms. This will help to improve the health status of the patient during therapy and this will not affect the efficacy of chemotherapy. The ability of ginger in preventing chemotherapy induced nausea and vomiting has already been established.

Ayurveda is well-renowned to manage the cancer in various ways, like curative, supportive, palliative and prophylactic care. Ayurveda also has lots of benefits to improve the health of cancer patients, such as it is used as additional or co-therapy with conventional treatment, reduces the dose and side effects of drugs in conventional treatment, helpful in targeting individual tissue, and also diminishes the growth of cancer in patients. (13)

According to research conducted on the herb, Ashwagandha helps in the slowing down of the growth of the cancer cells and inhibits the growth of tumor cells without harming the good cells.

Naturopaths have been using raw garlic, garlic juice or soups, to treat cancer for ages. Garlic has even proven to kill brain cancer cells (in addition to colon cancers) without harming healthy cells, and with no side effects.

Green tea isn’t just consumed for weight loss, but also as a healing remedy for colon and other cancers. Not only does it inhibit the formation of cancerous cells, but the catechin polyphenols within can even kill cancerous cells without harming healthy cells.

Ginger is used in many Indian dishes. Consumption of ginger powder or ginger roots significantly reduces inflammation markers that have been earlier proved in clinical research as precursors to colon cancer.

Curcumin is found in turmeric roots cause self destruction of colon cancer cells. Positive results were found when testing turmeric’s ability to destroy cancer cells at the Department of Surgery, Dalhousie University, Halifax, Nova Scotia, Canada.

According to The Central Council for Research in Ayurvedic Sciences (CCRAS) CCRAS, research wing of AYUSH (Government of India) has researched on herbs for its anti cancer properties and pharmacological activities as per modern science. These herbal extracts which have established anti-cancer properties are processed with cow urine in a ultra modern Ayurvedic pharmaceutical industry.

Urine of cow has been researched for its ability to improve efficacy and absorption of anti cancer drugs of modern medicine (allopathy) and herbal extract. Hence our Ayurveda medicines made of cow urine and herbal extracts are effective for Cancer. (14,15)

Medical Review:

Cancer patients who were treated by modern medicines, yet no results were obtained and a life expectancy of 6, 8 or 12 months was given. Patients were treated by Ayurveda and Cow Urine Therapy. There life expectancy which was told to be 6 - 12 months improved to 4 - 6 years and lived a good quality of life. Patients taking treatment with faith and confidence have received good results.

**CONCLUSION**

It is still controversial whether Ayurveda can cure cancer or not, but a combination of Ayurveda and Chemopathy is considered to be the best, since the side effects are reduced or eradicated by ayurveda.

But it is scientifically proven that ayurveda along with yoga and diet can prevent cancer upto a great extent. With a little bit of more advancement and research, our herbs can be used for therapeutical purpose.

Each herb contains multiple active principles that often operate synergistically producing therapeutic benefits and lowering the risks of adverse effects; and avoids the need for supplemental therapy to manage cancer cachexia. Now it is important to raise awareness and encourage implementation of Ayurvedic therapies for combating cancer and suggest an integrated approach in tumor management and treatment. Ayurveda may cure cancer 100% in upcoming future.
REFERENCES