



Unlocking the potentials of *Ayurvedic* Cancer Management – A Comprehensive exploration

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Abstract

Cancer treatment in present day medicine is at a stumbling stage and researchers are looking multiple options even from alternate medical systems. Many herbs and their phyto-chemical ingredients were screened for anti-tumor and anti-cancerous properties. *Ayurvedic* treatment options also need new strategies, without compromising its basic theories. In this paper, present day herbal cancer treatments along with new strategies are discussed.

Key words: Cancer, *Ayurveda*, *Arbuda*, *Vishachikitsa*, *Rasayana*

Introduction

Cancer, one of the most deadly challenges of mankind is spreading drastically in 21st century and has now officially become the most dangerous killer in the world. According to the World Health Organization, there were approximately 10 million deaths from cancer in 2020¹. Cancer is a multi-factorial disease caused by damages in the genes. It is influenced by changes in life styles, stressed living conditions, pollution, exposure to certain chemicals, ionizing radiation, lack of healthy food habits etc. Modern treatments like surgery, chemotherapy and radiation therapies not only burdens the quality of life, but also hampers the physical, mental and economic areas of the patient. In this background, medical profession is also in serious pursuit of effective remedies for cancer from other medical systems. *Ayurveda*, the Indian system of medicine can also aid much in this direction.

Ayurveda's historical perspectives on cancer

In *Susrutha Samhitha* cancer was described as '*Granthi*' (minor neoplasm) or '*Arbuda*' (major neoplasm)². There are mentions of various other advanced pathological conditions described in the context of *Udara*, *Arsha*, *Apachi* etc. with the features of malignancy. Descriptions on solid tumors like *Mamsarbuda*, other tissue malignancies like *Raktarbuda* are specifically considered as well as specific metastatic lesions like *Dwirarbuda* and *Adhyarbuda*³ are also mentioned. Due to the lack of techniques like histopathological studies, identification, confirmation and staging of many of the cancers were not even successful earlier. In some parts of India, there existed treatments for some types of cancers in local names other than *Arbuda* especially in *Sidha* traditions. But it was not properly documented. *Ayurveda* offers purification therapies (*Sodhanachikitsa*), curative treatments (*Samanachikitsa*) and

rejuvenative treatments (*Rasayanachikitsa*) for many diseases. Since little treatment guidelines were available about these diseases in the classical texts which were written in ancient past, practitioners followed their personal treatment options and traditions in the cancer treatment. This resulted in the non-uniformity of treatments and retarded growth of cancer treatment branch, though effective drugs were available in some regions. Lack of patronage also added to the extinction of many such valuable traditions of indigenous remedies in cancer treatment.

Applications of Ayurvedic cancer management

In modern times, single drug herbal preparations of *Semicarpus anacardium*(*Bhallathaka*) are effectively used for certain cancers^{4,5}. Many herbs like *Andrographis paniculata*, *Anona atemoya*, *Phyllanthus niruri*, *Piper longum*, *Podophyllum hexandrum*, *Tinospora cordifolia*, *Vitis vinifera*, *Aloe vera*, *Madhuca indica*, , *Pterospermum acerifolium*, *Raphanus sativus*, *Barleriaprionitis*, *Prosopis cineraria*, *Amorphopallus campanulatus*, *Oxoxylum indicum*, *Basellarubra*, *Flacourtia romantchi*, *Moringa oleifera*, *Ficus bengalensis*, *Curcuma domestica*, *Allium sativum*, *Calotropis giganteum*, *Datura metel*, *Hygrophila spinosa*, *Juniperus indica*, *Moringa oleifera*, *Nigella sativa*, *Picrorrhiza kurroa*, *Rubia cordifolia*⁶ etc show anti-cancer properties.

Another advancement in the herbal medical treatment was to extract the phytochemical ingredients which showed anti-cancer and anti-tumor activity. Clinical studies were done at multiple centers in the domestic and international sectors to confirm anti-cancer activity of these ingredients. The following agents are popularly used as plant-derived compounds such as vinblastine, vincristine, etoposide, teniposide, taxol, navelbine, taxotere, topotecan and irinotecan are in use as anticancer drugs⁷. Other phytochemical contents which may soon enter to this list include curcumol, monocrotaline, d-tetrandrine, 10-hydroxycamptothecin, lycobetaine, indirubin, colchicinamide, curdione, and gossypol.

Regarding polyherbal preparations which form the hallmark of present day *Ayurveda*, also finds place in cancer treatments. Some herbal decoctions like *Varanadikashaya*, *Indukanthamkashaya* and *Vilvadigutika*⁸ are made of multiple herbs which possess great potential for a cancer cure, because these formulations work on multiple biochemical pathways and influence different organ systems by supporting the body's defense systems. But this is not sufficient, since cancer is a multi factorial disease with cells having the properties of sudden multiplication, invasion and spread. So new strategies are needed with theoretical support as the need of the hour to propose modified interventions.

Innovative strategies in Ayurvedic cancer treatment

As a new strategy, this article advises to adopt *Ayurvedic* treatments using toxic substances used in *Vishachikitsa* in the early phase of cancer treatment. *Acharya Susrutha* while detailing about cancer, describes *Apaki* (intermediate substance resistant to get transformed) as a special feature of cancer growth (*Arbuda*)⁹. While describing about poisons, *Acharya Susrutha* uses the same word to emphasize the special nature of poison. So in toxicology (*Vishachikitsa*) and in cancer treatment, body fails to metabolise certain substances and hence it can't overcome the situation. This gives a clear idea about the diversions to be taken while handling such cases from the routine therapies. Cancer treatment and poison treatment both needs fastness, accuracy and skills at the earliest.

Like the *Ama* stage described in *Jwarachikitsa*, *Ayurvedic* cancer treatments need the use of anti-poisonous drugs in the early phase.

Rasasastra, literally means science of mercury, is an advanced branch of *Ayurveda*, known for the use of inorganic pharmaceutical preparations and purified metal and mineral preparations also finds place in cancer treatment¹⁰. *Sidha* system known as the ancient medical system of the Dravidians of peninsular south India, also have similar theories of *Ayurveda* and comes with many medications fit for variety of diseases including cancer. Some of the preparations from these branch include preparations like *Rasasindooram*, *Chandamaruthasindooram*, *Neelakanta Balarasam*, *Nandi Mezhuku*, *Navapashanam*¹¹ etc. which are employed in the treatment of aggressive cancers and are used by many practitioners. Heavy metals like Arsenic, Mercury, Cadmium, Silver etc are used in *Ayurveda* and *Sidha* medicines with different purification strategies¹².

Rasayana, another branch of *Ayurveda* is also highly significant and remains as a treasure house for many ailments including cancer. There are many techniques to improve immunity of the individuals in health and disease. These *Rasayana* drugs have the properties like immunostimulant, anti oxidant, cytoprotective, adaptogenic, nootropic and anabolic properties¹³. According to *Ayurvedic* concepts, children have a lesser level of immunity and they are more vulnerable to diseases. So preparations including *Rasayanas* are advised to meet the low levels of immunity from childhood. A trial conducted at RCC Trivandrum with *Triphalarasayana* a pure poly herbal paediatric preparation was found effective in the management of non-Hodgkin's lymphoma with encouraging results¹⁴. Trials with *Chyavanprasa* and *Brahmarasayana* were also found very useful to overcome the after effects of chemo and radio therapies¹⁵.

Conclusion

Cancer is a challenge to mankind from time immemorial and it requires new strategies and discoveries to bring satisfactory solution. Increase in the number of cancer patients increases the demand of safe and effective cancer treatments worldwide. As one among the ancient medical systems, *Ayurveda* can aid much in different areas of cancer treatment which includes curative, preventive and palliative areas. It can reduce side effects of chemotherapy and radiation and can be used along with modern drugs, with added improvements in the quality of life.

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