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Cancer, concept and treatment in Ayurveda

Introduction

Cancer is the most dreaded disease of our time. The disease is spreading further with the continuance and increasing incidence. Over the years, lung, esophageal, prostate, stomach, oral and pharyngeal cancers are increasingly becoming predominant in males, whereas cancers of the cervix and breast are common in females.

Scientists from various disciplines are collaboratively striving to combat cancer, employing treatments such as surgery, radiation therapy, chemotherapy, and biological therapy. While these approaches achieve a cure in about 50% of cancer cases, the contemporary cancer treatment paradigm has seemingly plateaued, necessitating further advancements to address the challenges posed by the disease. Besides, cancer treatment has excessive cost. Treatments like chemotherapy and radiotherapy employed in the treatment of cancer have serious side effects, leading to residual morbidity and relapses.

Ayurveda as a complementary treatment option in cancer care is generating interest among the scientific community, the medical community and patients. This

article gives an overview of cancer, the concept and treatment in Ayurveda.

Ayurveda and Cancer

As with any other condition, the basis of cancer is in Tridosha. Meanwhile, the first mention of cancer is in Atharva Veda, possibly identified as "apachi" or "apachith", which refers to the current awareness of different types of swelling of the lymph nodes.

According to Charaka and Sushrutha Samhitas, cancer is categorized as inflammatory or non-inflammatory swelling, termed Granthi (minor neoplasm) or Arbuda (major neoplasm). In benign neoplasms (Vataja, Pittaja, or Kaphaja), one or two bodily systems are imbalanced, yet overall body harmony is maintained. Malignant tumors (Tridosaja) are deemed highly detrimental due to the breakdown of coordination among Dohas. This loss of mutual coordination prevents the body from tissue damage, leading to a severe and potentially fatal morbid condition. Ayurveda emphasizes restoring balance to address these imbalances and their consequences.

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Pathogenesis

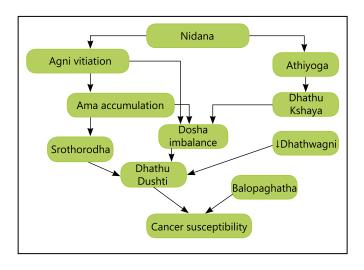
Pathogenesis of Cancer is Thridoshik. There is an interaction of Thridosha in the pathogenesis of cancer. The normal tissue grows into a swelling because of Dosha. Then granthi or minor neoplasm occurs when further vitiated; excess growth results in Arbuda or cancer.

Arbuda can occur anywhere in the body, and genetics could be involved, Shukra and Shonitha are involved in pathogenesis. Besides genetics, diet and lifestyle are also responsible for the pathogenesis of Arbuda.

Athiyoga, which is constant psychological and physical discomfort, is an important contributing factor. Other factors are Aama, Kshaya and Srotho Avarodha. Dhathvagni impairment and Balopaghata means impaired immunity is also considered as part of pathogenesis.

Ayurvedic treatment of cancer

Treating the cause of cancer is the primary way of treating it, as per Ayurveda. Therefore, Shodhana therapy is required



for the treatment of cancer. Complete removal of Dosha and improving Bala are important. Snehana, Virechana and Basthi are recommended for Shodhana. As per some studies, Shodhana increased body weight, improved serum immunoglobulins, increased hemoglobin levels, and normalized liver functions. Some of the traditionally used treatments are mentioned in table 1.

Table 1: Treatments of Arbuda and Granthi	
Arbuda	
Medoja Arbuda	External application of <i>Curcuma domestica</i> (Haridra), <i>Triticum sativum</i> (Godhuma), <i>Symplocos racemosa</i> (Lodhra) Oil of <i>Pongamia glabra</i> (Karanja) for internal consumption
Kaphaja Arbuda	Kashaya of leaves <i>Clitoria ternatea</i> (Aparajitha), <i>Jasminum grandiflorum</i> (Jaathi) and <i>Nerium odorum</i> (Karavira) Thailapaka of <i>Premna herbacea</i> (Bhumi Jambooka), <i>Embelia ribes</i> (Vidanga), <i>Cissampelos pareira</i> (Patha)
Vathaja Arbuda	Lepa of choorna of the following with butter/milk: <i>Benincasa cerifera</i> (Kushmanda), <i>Cucumis memordica</i> , <i>Cocos nucifera</i> (Narikela), and <i>Ricinus communis</i> (Eranda beeja)
Pitthaja Arbuda	Initial treatment with <i>Ficus glomerata</i> (udumbara), <i>Tectona grandis</i> (Shaaka), and <i>Elephantopus scaber</i> (Gojihwa) Honey mixed fine paste of <i>Aglaja roxburghiana</i> (Priyangu), <i>Caesalpinia sappa</i> (Pathranga), <i>Symplocos racemosa</i> (Lodhra), <i>Terminalia arjuna</i> (Arjuna), <i>Xanthium strumarium</i> (Arishta)
Granthi	
Vathika Granthi	Local application of <i>Helloborus niger</i> (Thiktharohini), <i>Tinospora cordifolia</i> (Guduchi), <i>Clerodendron serratum</i> (Bharangi), <i>Aegle marmelos</i> (Nimba), <i>Hoya viridiflora</i> (Svarnajeevanthika), <i>Elephantopus scaber</i> (Gojihwa), <i>Soymida febrifuga</i> (Mamsarohini) and <i>Gynandropis pentaphylla</i> (Ajagandha)
Pitthaja Granthi	Local application of <i>Capparis spinosa</i> (Himsra), <i>Agati grandiflora</i> (Agasthya), <i>Lagenaria vulgaris</i> (Alabu), <i>Premna herbacea</i> (Bhumi-jambuka), <i>Pongamia glabra</i> (Karanja), <i>Musa sapientum</i> (Kadali) and <i>Randia dumetorum</i> (Madanaphala)
Kaphaja Granthi	Terminalia chebula (Harithaki) powder orally Glycyrrhiza glabra (Yashtimadhu), Eugenia jambolana (Jamboola), Terminalia arjuna (Arjuna) or Calamus rotang (Vacha) paste for external application

Perspectives from modern research

Integrative oncology, a combination of Ayurveda and modern medicine, seems to be a feasible and beneficial approach to managing cancer. The approach can address the prevention, diagnosis, and treatment of cancer, cancerrelated symptoms, and side-effects of conventional cancer treatment. guidelines from the National Comprehensive Cancer Network (NCCN) include acupuncture, massage, meditation, yoga, herbs, music therapy, exercise, and nutrition, among their recommendations for alleviating common symptoms, such as fatigue, pain, nausea, hot flashes, and sleep disorders.

There are four herbs from which some of the chemotherapy drugs are derived:

1. **Sadapushpa:** vinca alkaloids (vinblastine, vincristine, and vindesine)

- 2. **American Mayapple plant:** epipodophyllotoxins (etoposide and teniposide)
- 3. **European yew:** taxanes (paclitaxel and docetaxel)
- 4. **Camptotheca acuminita:** camptothecin derivatives (camptothecin and irinotecan)

Therefore, there is scope for anticancer herbs provided robust research is performed.

Ayurvedic medicines for cancer care

In general, drugs targeting Agni (digestive power), Vata-shamaka (anti-inflammatory and anti-oxidants), and enhanced Ojas (immunomodulators) are beneficial in cancer. The line of management of Dushtagranthi (malignant cyst), Dushtavrana (malignant wound), Dushtashopha (malignant edema), and Dushtavisarpa (malignant erysipelas) are also helpful.

Rasayana therapy

Rasayana as an adjuvant therapy in cancer is well-studied. Studies have shown that Amrithaprasham, Ashwagandha Rasayana, Brahma Rasayana, Chyavanprasha, Narasimha Rasayana, and Triphala Churna have radioprotective effects. Rasayana is found to reduce the adverse effects of chemotherapy as well. In a study, treatment with Rasayana medicines reduced nausea and vomiting (86%), mucositis (72%), fatigue (59%) xerostomia (48%), alopecia (45%), and tastelessness (33%) (Fig. 1). The weight loss was also lower in those treated with Rasayana as adjuvant therapy. Strong antioxidative properties of Rasayana treatments may be at play in improving the tolerability of cancer therapies like chemotherapy and radiation therapy.

Various studies have shown that Ashwagandha is effective, especially in breast cancer patients. Ashwagandha is found to have immunomodulatory, anti-cancer, adaptogenic, and regenerative attributes. It also may reverse chemotherapy-induced myelosuppression. Besides angiogenesis, a significant pathological aspect of cancer is reduced by treatment

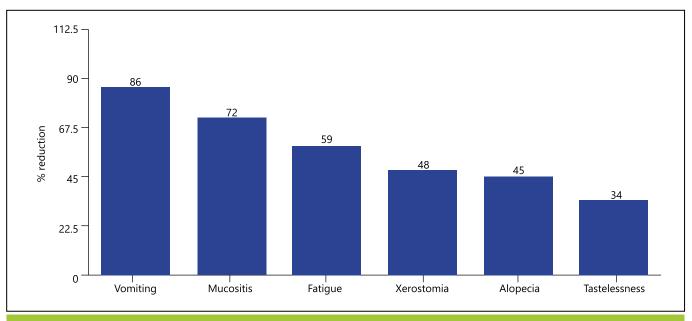


Table 1: Reduction in adverse effects of chemotherapy with addition of Rasayana to conventional treatment

with Brahma Rasayana, which could assist in the reduction of tumor growth and metastatic spread. Anorexia and cachexia are among the bothering aspects of cancer progression and therapy. Rasayana therapy induces significant weight gain and improves the quality of life (QoL), primarily related to QoL subdomains of physical, emotional, and functional well-being.

Management of local problems with appropriate Ayurvedic treatments is also beneficial. Draksha-guduchyadi kavala was helpful in the management of radiotherapy-induced oral mucositis. Similarly, Yashtimadhu was also effective on radiation-induced mucositis.

Conclusion

- Cancer management continues to puzzle clinicians in every branch of health sciences.
- * Ayurveda has dealt in detail with cancer and its pathology and, like other medical sciences, considered cancer as incurable or at least very difficult to treat.
- * Ayurveda, especially Rasayana therapy, can play a huge role in reducing the adverse effects of chemotherapy and radiation therapy.
- * Rasayana also can improve quality of life.
- * Cancer patients should receive Rasayana therapy, as they may benefit immensely from it.

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Experience

Bhallathaka, Kanchanara, Madhunashini and combination of Haridra and Mareecha, Panchagavya Gritha and Kanchanara Guggulu are found beneficial in my clinical practice in several cases of cancer. Can use these medicines after Shodhana (Vamana and Virechana), based on Dosha and Dooshya in suitable patients.

