



# CONCEPTUAL STUDY OF CANCER IN AYURVEDA

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## ABSTARCT

Cancer is the major killer among the major causes of death in the world. this dreadful condition has attracted the minds of physicians & surgeons from the very early times. it will be fascinating to note that sushruta (father of surgery) had mentioned about the cancer (arbuda). Ayurvedic texts mentioned about arbuda, which is considered as an equivalent of cancer. Acharya charaka described arbuda in the chapter on shopha i.e. Inflammatory & non-inflammatory swellings (cha.su.18.; cha.chi.12.). Acharya sushruta provided more information on arbuda, granthi, apachi, gandamala etc. Which is cancer related conditions. cancer is often compared to arbuda of ayurvedic classics, many other conditions are found to fall under different tumours. It is very important to do nidanpanchakatmaka study on ayurvedic approach of cancer.

Tumour.

**Keywords:** Cancer, Arbuda, Tumour, Nidan, Rupa, Classification, Samprapti, Sadhyasadhyatva.

## INTRODUCTION

Cancer is the major killer among the major causes of death in the world. This dreadful condition has attracted the minds of physicians & surgeons from the very early times. It will be fascinating to note that sushruta (father of surgery) had mentioned about the cancer (arbuda).

Cancer is often compared to a condition called arbuda described in ayurvedic treatise. But if we find the signs & symptoms of many pre-cancerous and post-cancerous states under different conditions like gulma (cystic growths), apachi (benign growths), gandamala (lymphatic growths) etc.

India is amongst the few pioneers in the development & practice of well documented indigenous systems of medicine, the more important being ayurveda. Ayurveda in specific has incorporated a number of natural products in the treatment of variety of cancer.

Ayurvedic texts mentioned about arbuda, which is considered as an equivalent of cancer. Acharya charaka described arbuda in the chapter on shophya i.e. Inflammatory & non-inflammatory swellings (cha.su.18.; cha.chi.12.). Acharya sushruta provided more information on arbuda, granthi, apachi, gandamala etc. Which are cancer related conditions.

in ayurveda, causation of any disease is mentioned under five divisions viz.,

- **Nidana** (etiology)
- **Purva rupa** (prodromal symptoms)
- **Rupa** (signs & symptoms)
- **Upashaya** (treatment & means of differential diagnosis)
- **Samprapti** (pathogenesis)

though cancer is often compared to arbuda of ayurvedic classics, many other conditions are found to fall under different tumours. Now we discussed only arbuda in the present contexts.

## MATERIALS AND METHODS-

### NIDANA (ETIOLOGY) OF ARBUDA:<sup>1</sup>

According to basic principles of ayurveda, there is no disease without the derangement of doshas. Similarly, no single cause is assigned to be the causative factor of a particular disease.

The nature of a disease may be different in the case of different persons possessing different doshas and different constitutions.

It is commonly explained that the deranged doshas etc., are responsible for the causation of arbuda. Therefore, all the factors responsible for the vitiation of respective doshas may be specifically considered here:

	Nidan /Hetu
<b>Vata prakopa hetus</b>	<ul style="list-style-type: none"> <li>• Excessive intake of tikta (bitter), katu (pungent) &amp; kashaya (astringent) foods;</li> <li>• Ruksha padartha (dry foods);</li> <li>• More stress and strain.</li> </ul>
<b>Pitta prakopa hetus</b>	<ul style="list-style-type: none"> <li>• Excessive intake of amla (sour), katu (pungent) &amp; lavana (salty) diet;</li> <li>• vidahi padartha (fried foods);</li> <li>• krodha (more anger).</li> </ul>
<b>Kapha prakopa hetus</b>	<ul style="list-style-type: none"> <li>• Excessive intake of madhura (sweet), amla (sour) &amp; lavana (salty) diet;</li> </ul>

	<ul style="list-style-type: none"> <li>• Snigha Padartha (Oily Foods);</li> <li>• Sedentary Nature.</li> </ul>
<b>Rakta prakopa hetus</b>	<ul style="list-style-type: none"> <li>• Excessive intake of vidahi (fast foods etc.).</li> <li>• Amla (sour), ushna (hot) diet etc.</li> <li>• Other pitta prakopa karanas.</li> </ul>
<b>Mamsa prakopa hetus</b>	<ul style="list-style-type: none"> <li>• excessive intake of mamsa (meat), injuries, irregular diet etc.,</li> <li>• factors.</li> </ul>
<b>Medo prakopa hetus</b>	<ul style="list-style-type: none"> <li>• Excessive intake of oily foods, sweets, alcohol,</li> <li>• lazy attitude</li> </ul>

### Rupa (signs & symptoms) of arbuda

Though many cancer related conditions are described in the ayurvedic classics, mainly arbuda is discussed in this context:.

- **Samanya Lakshanas (General Signs & Symptoms)<sup>2</sup>**

गात्रप्रदेश क्वचिदेवः दोषाः संमूर्छिता मांसमसृक प्रदुष्य ।

वृत्तं स्थिरं मन्दरुजं महान्तमनल्पमूलं चिरवृद्ध्यपाकम् ।।

कुर्वन्ति मांसोच्छ्रयमत्यगाधं तद् अर्बुदं शस्त्रविदो वदन्ति । मा.नि.<sup>2</sup>

1. In any part of sharira, utkrushta of dosha leads to dushya of mamsa and rakta. Then it produces mass like structure which is -
2. Vrutta, (circular)
3. Sthira, (stable) having
4. Alpapidana (less pain or symptoms),
5. Mahanta, (grows in size)
6. Analpamula (very deep rooted),
7. Chira (slow growing),
8. Na paka (does not undergo suppuration).

- i. Such kind of enlarged mamsapinda called as arbuda

9.

- Vishesha Lakshanas (Specific Signs & Symptoms)<sup>3,4</sup>

वातेन पित्तेन कफेन चापि रक्तेन मांसेन च मेदसा वा ॥११॥

तज्जायते तस्य च लक्षणानि ग्रन्थे: समानानि सदा भवन्ति । (सु.नि. ११)

	TYPES <sup>4</sup>		LAKSHANA
1.	<b>Vataja arbuda</b>	आयम्यते वृश्च्यति तुद्यते च प्रत्यस्यते मथ्यति भिद्यते च । कृष्णो मृदुर्बस्तिरिवाततश्च भिन्नः स्रवेच्चानिलजोऽस्त्रमच्छम् ॥१२॥ (सु.नि. ११)	<ul style="list-style-type: none"> <li>• Pulling, /Stretching, Splitting, Pricking, Throwing &amp; Twisting or Churning Type of Pain</li> <li>• Mass will be black,soft, swollen as like of basti.</li> <li>• When it opens up clear srava comes out.</li> </ul>
2.	<b>Pittaja arbuda</b>	दन्दह्यते धूप्यति वृश्च्यते च पापच्यते प्रज्वलतीव चापि । रक्तः सपीतोऽप्यथवाऽपि पित्ताद्भिन्नः स्रवेदुष्णमतीव चास्त्रम् ॥१३॥ (सु.नि. ११)	<ul style="list-style-type: none"> <li>• Swelling with hot &amp; burning sensation,</li> <li>• Pricking pain.</li> <li>• Necrotic,</li> <li>• Reddish yellow coloured.</li> </ul>
3.	<b>Kaphaja arbuda</b>	शीतोऽविवर्णोऽल्परुजोऽतिकण्डुःपाषाणवत् सहननोपपन्नः । चिराभिवृद्धश्च कफप्रकोपाद्भिन्नः स्त्रवेच्छुक्लघनं च पूयम् ॥१४॥ (सु.नि. ११)	<ul style="list-style-type: none"> <li>• Swelling which is cold,</li> <li>• Skin coloured,</li> <li>• Less painful,</li> <li>• Severely itching,</li> <li>• Stony-hard and</li> <li>• Slow growing.</li> </ul>
4.	<b>Medoja arbuda</b>	शरीरवृद्धिक्षयवृद्धिहानिः स्निग्धो महान् कण्डुयुतोऽरुजश्च । मेदःकृतो गच्छति चात्र भिन्नपिण्याकसर्पिः प्रतिमं तु मेदः ॥१५॥ (सु.नि. ११)	<ul style="list-style-type: none"> <li>• Tumour increases and decreases with the body weight</li> <li>• It will be smooth, large,</li> <li>• Itching and</li> <li>• Painless.</li> </ul>

			<ul style="list-style-type: none"> <li>When it splits open, the ghruta &amp; pinyaka like fluid of meda will come out.</li> </ul>
5.	<b>Raktaja arbuda</b>	<p>दोषः प्रदुष्टो रुधिरं सिराश्च संकुच्य संपिण्डय ततस्त्वपाकम् ॥ २० ॥ सास्त्रावमुन्नहति मांसपिण्डं मांस अन्कुरैराचितमाशुवृद्धं ॥ करोत्यजस्त्रं रुधिरप्रवृत्तिमसाध्यमेतुधिरात्मकं तु । रक्तक्षयोपद्रवपीडितत्वात् पाण्डुर्भवेदर्बुदपिडितस्तु ॥ (सु.नि.)</p>	<ul style="list-style-type: none"> <li>Unripe, with exudate,</li> <li>Node or polyp-like appearance.</li> <li>Spreads very quickly and</li> <li>Increases in size quickly, and</li> <li>May also bleed severely.</li> </ul>
6.	<b>Mamsaja arbuda</b>	<p>मुष्टिप्रहारादिभिरर्दितेऽङ्गे मांसं प्रदुष्टं जनयेद्भि शोथम् ॥ २२ ॥ स्निग्धमनन्यर्वर्णमपाकमश्मोपममप्रचाल्यम् । प्रदुष्टमांसस्य नरस्य गाढमेतद्भवेन्मांसपरायणस्य ॥ २३ ॥ मांसार्बुदं त्वेतदसाध्यमुक्तं - (सु.नि. ११)</p>	<ul style="list-style-type: none"> <li>Painless,</li> <li>Glistening,</li> <li>Skin- coloured,</li> <li>Stony hard,</li> <li>Immobile swelling.</li> </ul>

Some of the other cancer related conditions in ayurveda are summarized here with modern correlation

	Ayurvedic name	Modern condition
a)	<b>Charma keela</b>	Keloid.
b)	<b>Padminikantaka</b>	Papilloma of the skin.
c)	<b>Sosha &amp; pandu</b>	Leukemia's.
d)	<b>Medoja ganda mala</b>	Hodgkin's lymphomas.
e)	<b>Apachi</b>	Hodgkin's disease.
f)	<b>Agantuja sthana roga</b>	Cancer of the breast.
g)	<b>Yakrutodara</b>	hepatomegaly due to tumours of liver.

h)	<b>Pleehodara</b>	Splenomegaly due to infiltrate diseases of spleen.
i)	<b>Rakta gulma</b>	Tumours of uterus and ovary (?).
j)	<b>Raktaja, mamsaja &amp; medoja ostha roga</b>	Carcinoma of lips
k)	<b>Kachchapa, raktarbuda &amp; mamsa sanghata talu rogas</b>	Carcinoma of palate.
l)	<b>Balasa &amp; galayu kantha rogas</b>	Bronchogenic carcinoma or lung tumours
m)	<b>Mamsatana</b>	Tumours of the pharynx.
n)	<b>Swarabhanga</b>	(some types) tumours of larynx.
o)	<b>Karnarbuda</b>	Cauliflower ear.
p)	<b>Ajakajata</b>	Staphyloma.
q)	<b>Nasa arshas</b>	Neoplastic nasal polyp
r)	<b>Nasa arbuda</b>	Rhinoscleroma
s)	<b>Nasagata raktapitta</b>	Epistaxis resulting from the nasal tumours <b>Benign-</b> <ul style="list-style-type: none"> <li>• Bleeding polyps</li> <li>• Nasopharyngeal fibroma</li> </ul> <b>Malignant –</b> <ul style="list-style-type: none"> <li>• Carcinoma</li> <li>• Sarcoma</li> </ul>
t)	<b>Adhimamsa</b>	Myomas (?)

#### List of different arbudas mentioned in the ancient classics :

- Vataja arbuda
- Pittaja arbuda
- Kaphaja arbuda
- Medoja arbuda
- Raktaja arbuda
- Mamsaja arbuda
- Sthanarbuda
- Karnarbuda
- Nasarbuda

- Osthambuda
- Raktaja-osthambuda
- Jihwambuda

Other arbudas are :

- **Adhyarbuda** – a very big tumour or a secondary tumour
- **Dwirarbuda** – a pair of tumours or tumours formed one after other at one place.

अध्यर्बुदमाह-यज्जायत इत्यादिना । अधिकमर्बुदमध्यर्बुदम्, एतद्विरर्बुदमेव ।

यद्वन्द्वजातं युगपत् क्रमाद्वेति द्वन्द्वजातं युग्मेन जातं, युगपदेकदा क्रमेण वा तद्विरर्बुदं न साध्यम् ।

### Samprapti (pathogenesis) of arbuda<sup>5</sup>

Before proceeding to pathogenesis of arbuda and its management, it is essential to know the basic concepts of ayurveda in relation to cancer.

Ayurveda, explains histology and anatomy in the following order:

1. Sukshma srotas = innumerable cells (ic spaces & EC spaces)  
human body is made up of 100 trillions of cells (approx)
2. Dhatus = seven in number (tissues)
3. Kala = seven in number (tissue systems)
4. Ashaya = seven in number (organs)
5. Yoga vaha srotas = 22 in number (organ systems)

the human physiology is explained on the basis of tridoshas (three humors) viz vata, pitta & kapha. The normal state of these humors will maintain the homeostasis (swasthya) and their derangement results in disease (roga). These three factors shall be comparable to neurological, endocrinal and exocrinal activities respectively.

Cellular level	Dosha	Somatic level
Functions of nucleus	Vata	Neurological activity
Functions of mitochondria	Pitta	Hormonal & enzymatic activity i.e., endocrinal activity
Functions of protoplasm	Kapha	Various secondary activities i.e., exocrinal activity



Agni or pitta is considered to be the factor responsible for digestion and metabolism in human body. It is also mentioned that every cell and tissue will have its own agni.

It is generally stated that the decrease in agni is inversely proportional to the related dhatu (tissue) and vice versa. Therefore in arbuda the decreased state of dhatwagni (deranged metabolism) is resulting in the excessive growth of the dhatu (rakta or mamsa or medas).

Whenever there is excessive growth at a particular site (eka desa vriddhi). There must be some deficit on other part of the body (anya sthaniya kshaya). This is the general concept of pathology in ayurveda. In cancer eka desa vriddhi is indicated by tumour growth and anya sthana kshya is denoted by loss of body weight.

Sushruta the father of surgery, proposed six stages in the pathogenesis for all diseases in general. But, in specific his concept suits more to the pathology of neoplasms. He being a surgeon might have considered the surgical conditions like arbuda, granthi, apachi, galaganda etc., and proposed shat kriya kalas (six steps in disease process).

### They are:

1. **Sanchaya** - early stages of neoplastic changes i.e., when the growth is only localized.
2. **Prakopa** - transformation of primary growths into metastatic tumors i.e.. Invasion.
3. **Prasara** - metastasis (in the development of cancer stage of invasion is followed by metastasis).
4. **Sthana samsraya** - the stage when is complete and second- aries developed at another place outside the place of origin of the tumour.
5. **Vyakti** - the stage where clinical signs and symptoms of neoplasms are expressed (usually many tumours remain asymptomatic and obscure till late stages).
6. **Bheda** - the stage where differentiation of growths is made into specific groups on the basis of histopathology. (the treatment is also planned according to the state of the disease process).

\* **classification of arbuda may be done on the basis of trividha roga margas (three basic pathological pathways):**

1. **Bahya roga marga** : dhatus (tissues); twak (skin) etc.
2. **Madhyama roga marga**: snayu, kandara, etc. (connective tissues)
3. **Abhyantara roga marga**: maha srotas (endo dermal origin)



in the ancient texts arbuda, apachi, alaji, adhimamsa, ganda roga etc., were mentioned under the sakhasrita rogas (cha. Su. 11/49 and as. hri. Sv. 12/45) and gulma etc., were described under the abhyantara rogas (cha. Su. 11. & as. Hri. Su. 12). Adhyasthi etc., may be dealt under madhyama rogas. These conditions mainly denote the pre-cancerous and cancerous conditions in general.

**\* The basic differences in the above condtions are:**

- 1.) **Gala ganda/ ganda mala:** vata, kapha & medas (chira, manda paka)
- 2.) **Apachi:** vata, kapha & medas (reccuring growths)
- 3.) **Granthi:** vata, pitta, kapha, rakta, mamsa, medas & sira (kaphadhikya)
- 4.) **Arbuda :** vata, pitta, kapha, rakta & mamsa (apaka)

### SADHYASADHYATA<sup>6</sup>

सौम्यार्बुदानामसाध्यत्वम् साध्येष्वपिमानि तु वजयेण्च

संप्रसुतं मर्माणि यच्च जातं स्त्रोतः सु वा यच्च भवेदचाल्यम् ॥ (सु.नि.)

Even if the arbuda is sadharana and sadhya but if its sravayukta or situated in marmasthana, or present in nasika srotas and if its sthira arbuda then it is considered as asadhya.

Sadhya Arbudas are vataja Arbuda (chikitsa sadhya), Pittaja Arbuda, Kaphaja Arbuda, Medoja Arbuda, Asadhya Arbuda are Raktaja Arbuda and Mamsaja Arbuda.

### DISCUSSION-

Ayurveda defines three dynamic pathophysiological entities (Doshas), as the basis for all body function. The three Doshas are termed as Vata, Pitta, and Kapha, respectively. *Kapha Dosha* governs the nervous and musculo-skeletal systems <sup>7,8,9</sup>. At the cellular level, Vata Dosha can be associated with signaling pathways regulating cell growth, differentiation, and cell death. Vata Dosha also governs movements of cells, molecules, nutrients, and wastes <sup>10,11</sup>. The Pitta Dosha is responsible for transformative processes such as digestion, metabolism, energy production, and maintenance of immunity . At the cellular level, *Pitta Dosha* can be associated with actions of enzymes, growth factors, hormones, and the reactions required for energy homeostasis and maintenance of basal metabolism . *Kapha Dosha* acts to form and maintain body mass, shape, and flexibility. At the cellular level, anabolic processes (such as biosynthesis of macromolecules) and coordination of gene and protein function maybe associated with *Kapha Dosha* <sup>12</sup>

Ayurveda does not consider cancer as a distinct disease or set of diseases. Rather, ayurveda states that all diseases result from gross, systemic imbalances and malfunctions of the three *Doshas*. As mentioned above, specific

diseases (including cancer) originate from interactions between abnormal *Doshas* and weakened *Dhatus* <sup>13,14</sup> For example, vitiation of *Kapha Dosha* is a common link between cancer and diabetes; however, the organs (*Dhatus*) which are affected differ <sup>15,16</sup>. Thus, weak *Shukra Dhatu* (tissue regeneration and cell division) interacting with vitiated *Vata Dosha* and *Kapha Dosha* could lead to cancer, whereas excess and improperly formed *Meda* (adipose tissue) interacting with vitiated *Kapha Dosha*, can cause diabetes. The magnitude of illness and clinical presentation of cancer are thought to vary, because each person has different patterns of exposure to pathogens and has dynamic changes in the functioning of *Dhatus*.

Instead of using targeted therapies for destruction of the tumours, ayurvedic drugs/modes of treatment attempt to correct metabolic defects and restore normal tissue functions (“*Sama Dhatu Parampara*”). Like most forms of traditional medicine, ayurvedic medicine is holistic, since immunotherapy (*Rasayanaprayoga*) for rejuvenating the body's support systems, forms a significant component of cancer therapy.

## CONCLUSION-

Evidence from the omics revolution and systems biology clearly point to a strong degree of connectivity between physiological and molecular pathways that were considered independent. For example, the newly discovered links between inflammation, lipid metabolism, and cancer were unexpected. Therefore, this paper explains and analyses the links between two major diseases (cancer and metabolic syndrome). These new findings vindicate the holistic approach of ayurveda and other traditional systems of medicine, because it proves that a disease cannot be considered as a sequence of defective genetic and biochemical steps. Indeed, the links between inflammation, metabolic syndrome, and cancer suggest that even seemingly distinct diseases can arise from fundamental aberrations in metabolism, homeostasis, and immune function. Thus, the advances in omics analysis and systems biology are providing concrete evidence for some of the holistic concepts in traditional systems of medicine. If diseases are diagnosed and analysed in a holistic manner, then treatment of disease is also holistic. Accordingly, ayurvedic drugs/treatment regimens are largely designed to restore the body's natural defence mechanisms and self-healing powers. These therapies are aimed at ensuring long-term recovery from disease by strengthening and rejuvenating major body systems. This holistic approach of ayurveda is also true of other traditional systems of medicine and is precisely what attracts people to alternative medicine. Indeed, we are in an exciting phase of modern medicine, wherein rigorous scientific evidence supports some aspects of holistic, traditional medical systems. Sustained and collaborative efforts between ayurvedic physicians, clinicians, and basic sciences researchers may lead to a deeper understanding and even convergence of certain modern and traditional principles underlying health and disease.

## References :

1. Dr. J. L. N. Sastry, introduction to oncology cancer in ayurveda, chaukhambha orientalia varanasi, reprint edition:2016, p-3-10
2. Pra.vaidya y.g.joshi kayachikitsa, pune sahitya vivarana, reprint edition april 2014, 16<sup>th</sup> topic, p-177-188.
3. Dr.nisha kumari , a textbook of roga nidana and vikruti vijnana part 2, chaukhamba orientalia varanasi, reprint edition 2022, chapter 3, p-198-216.

4. Ayurvedacharya shriyudunandanopaadhyaya, madhav nidanam part 2, madhukosh tika, chaukhamba prakashan, Varanasi ,p-57-66, p-75-93.
5. Dr. J. L. N. Sastry, introduction to oncology cancer in ayurveda, chaukhambha orientalia varanasi, reprint edition:2016, p-3-10
6. Dr.nisha kumari , a textbook of roga nidana and vikruti vijnana part 2, chaukhamba orientalia varanasi, reprint edition 2022, chapter 3, p-198-216.
7. Charaka Samhita (Text with English translation) Chaukhamba Orientalia, 2000.
8. Sushruta Samhita (Text with English translation) Chaukhamba Visvabharati, 2000.
9. Valiathan MS. *The Legacy of Charaka*. Orient Longman; 2003. [[Google Scholar](#)]
10. Prasher B, Aggarwal S, Mandal AK, et al. Whole genome expression and biochemical correlates of extreme constitutional types defined in Ayurveda. *Journal of Translational Medicine*. 2008;6:48–60. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
11. Sharma HM. Contemporary ayurveda. In: Micozzi MS, editor. *Fundamentals of Complementary and Alternative Medicine*. 4th edition. St. Louis, Mo, USA: Saunders Elsevier; 2011. pp. 495–508. [[Google Scholar](#)]
12. Sharma H, Chandola HM. Ayurvedic concept of obesity, metabolic syndrome, and diabetes mellitus. *Journal of Alternative and Complementary Medicine*. 2011;17(6):549–552. [[PubMed](#)] [[Google Scholar](#)]
13. Svoboda RE. *Ayurveda Life Health and Longevity*. Penguin Books India; 1992. [[Google Scholar](#)]
14. Balachandran P, Govindarajan R. Cancer—an ayurvedic perspective. *Pharmacological Research*. 2005;51(1):19–30. [[PubMed](#)] [[Google Scholar](#)]
15. Sahu M, Mishra LC. *Benign Growths, Cysts, and Malignant Tumors. Scientific basis of Ayurvedic Therapies*. CRC Press; 2004. [[Google Scholar](#)]
16. Acharya YT. Caraka Samhita. Chaukhamba Surbharati, Varanasi, India, pp. 212, 1992.