

Concept of malignancy from ayurvedic and modern perspective A systematic Review of Literature

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Abstract-

This article contains some valid interpretations of the surgical explanations of the disease 'cancer' in terms of relative diseases in Ayurveda.

Modern oncology is a rapidly growing area in medicine. Cancer is a disease diagnosed on the basis of cellular changes hence the objectivity takes lead.

The first accounts of cancer in the history of medicine can be seen in seven papyri from Egypt dating back to 1600 BC. The term 'cancer' was coined by Hippocrates (ca. 460 BC - ca. 370 BC) in his corpus. The discussion in the Sushruta Samhita of the disease known as *Arbuda* has striking resemblance to tumour forming cancers, with vivid clinical observations differentiating it from other growths. There is no direct evidence revealing the understanding of non-tumour forming cancers in the tradition of Ayurveda. There is indication that the ancient physicians may have understood the correlation between chronic inflammation and cancer as '*Arbuda*' (malignant tumour) is considered to be an outcome of oedema or inflammation (*shotha*).

Cancer represents a significant economic burden for the global economy and is now the third leading cause of death worldwide by 2030, it is projected that there will be 26 million new cancer cases and 17 million cancer deaths per year. The aim of this article is to provide a general outline on descriptions of cancer or malignancy according to modern science as compared to Ayurveda in Sushruta Samhita.

Keywords- *Arbuda*, Ayurveda, Cancer, *Granthi*

AYURVEDIC CONCEPTS OF CANCER-

Cancer is the deadliest disease of the 20th century and spreading further with the continuance and increasing incidence in the 21st century. Cancer is second only to coronary artery disease as being the most common cause of death all over the world. The disease *Arbuda* was mentioned during the Vedic

period. Sushruta Samhita describe cancer as inflammatory or non-inflammatory swelling and mention them as either '*Granthi* (minor neoplasm) or '*Arbuda*' (major neoplasm). Sushruta Samhita defines three body control systems, viz., the nervous system *vata* or Air, *Pitta* or Fire and the *kapha* or water which mutually coordinate to perform the normal function of the body. In benign neoplasm (*vataja*, *pittaja*, *kaphaja*) one or two of three bodily systems lose mutual coordination and thus cannot prevent tissue damage, resulting in a deadly morbid condition.^{1,2,3}

Ayurvedic classification of neoplasm depends on various clinical symptoms in relation to *Tridoshas*.

GROUP 1-

Mamsarbuda (melanoma) and *raktarbuda*, *mukharbuda* (oral cancer) etc.

GROUP 2-

Diseases that can be considered as cancer, such as incurable ulcers with eg. *Tridoshaj gulma* (abdominal tumours) like carcinomas of stomach and liver or lymphomas.

GROUP 3-

Diseases with possibility of malignancy eg *visarpa* (erysipelas), *asadhya kamla* (incurable jaundice) and *nadi vrana* (sinusitis).⁵

NIDANAS OF ARBUDA-

Mamsavaha Strotodushti janya Nidana like *Abhishyandi Bhojya* (liquid), *Sthula Bhojya* (raw), *Guru Bhojya* (heavy food), *Bhuktam cha swapatam Diva* (Sleep immediately after lunch) can be considered as *Samanya Nidana* of *Arbuda*. Generally we can classify Nidana into

Vatakara Nidana as-

Mutations (90-95%), excessive mental stress, tension, frozen foods, soft drinks, smoking, *Shoka*,

Bhaya , Raga , Sheeta Ruksha Ahara , Virudha Ahara etc.

Pittakara Nidana as-

Excessive consumption of Amla, Lavan ,Katu Ahara , lead containing foods , fried and spicy foods, Krodha , more caffeinated drinks , UV radiation , Cell phone radiation , physical factors like asbestos, cobalt etc., hormones like estrogen,progesterone etc.

Kaphakara Nidana as-viruses (HPV,HIV,EPSTEIN -BARR virus, Kaposi',sarcoma herpesvirus,hepatitisA And C , parasites) obesity,diabetics.All available evidence in the contemporary literature suggests that the malignant transformation of predisposition ,chemical and physical carcinogens, viruses,radiation,hormonal changes ,Diet etc.⁴

.AETIOLOGY OF CARCINOMA IN GENERAL-

1)Tobacco-

isthemostimportantfactorinthedevelopmentoflungcancer, upperrespiratory tract cancer, gastrointestinal tract and genitourinary tract cancer.

2)Alcohol-

smokingandalcoholincreasesthepermeabilityoftheupperdigestivetract mucosa and respiratory mucosa to the carcinogens.thus,they increase the incidence of cancer

Hepatocellularcanceriscommonlyfoundinalcoholcirrhotic liver.

3)Ionisingradiation-

Atomicbombblastsinjapanhavedefinitelyresultedinincreasednumber of cases of breast cancer in premenopausal women and leukemia in children.

4)Ultravioletradiation-

causesalltypesofskincancers.

5)Geneticcauses-1)xerodermapigmentosa-

skincancer.

2)bloomssyndrome-

acuteleukemia,squamouscellcarcinoma.

6)hereditarycauses

7)dietaryfactors-readmeat-

carcinomacoln,carcinomabreast. Fat-carcinoma breast,carcinoma colon.

8)Chemicals-

Benzantracenes-skincancerwhenpaintedontheskin.

Benzopyrenes-Lung cancer.

Beta naphthylamine-bladder cancer.

Nitrosaminesandamides-cancerstomach. Asbestos-lung cancer.sss

9)Viralfactors-

HumanT-cellleukemiavirustype1(HTLV-1);T-cellleukemia/lymphoma.(RNAvirus)² Human

papillomavirus(HPV)CA cervix,CA urogenital region.

Epstein-Barrvirus;Burkitts lymphoma.(6)

Types of Arbuda according to Acharya Sushruta

1)Adhyarbuda- when Arbuda occurs in pre-existing sites .

2)Dwiarbuda-If several similar growth types happen in various locations ,one by one or when two tumors arise at same time.

These types indicates the recurrence and metastasis to distal locations.

According to Modern CARCINOMA⁶

Origin-

1)Ectodermal-skin cancer.

2)Endodermal-gut cancer.

Mesodermal-renal cancer.

Types-

1)Squamous cell carcinoma.

2)Basal cell carcinoma.

3)Glandular.

Type	Laxanas	Aggravating Factors
Vata Granthi/Arbuda	Variable, pricking and cutting pain, large, black, round, nonfixed, its size may fluctuate, bulging and if pricked, exudes a clear, thin fluid.	Aggravated Vata, due to dry or stale foods, stress, insomnia, fatigue, etc.
Pitta Granthi/Arbuda	Burning sensations, red or yellow in colour, suppurates quickly and exude warm blood when pricked	Aggravated Pitta, due to restlessness, spicy food, overcontrolling, aggressive behaviour, etc.
Kaphaja granthi/Arbuda	Painless, large, hard tumor, pale colour, the area around is cold and itches. Suppurates slowly and if pricked, exudes thick, white, cloudy pus	Aggravated Kapha is caused by too many fatty foods, fast foods, lack of movement, lethargy.
Rakta Granthi (Blood)/Arbuda	Loss of tactile sensations. Symptoms are similar to Pitta Granthi.	Aggravated Vata, Pitta, and Kapha circulate through the bloodstream, with Pitta Dosh being the main cause of the disturbance
Mamsa Granthi (Muscle tissue)/Arbuda	The large, oily, hard tumor tends to be very vascular. They ulcerate and bleed easily and often become malignant. Symptoms are similar to an imbalance of the Kapha Dosh	Excessive consumption of wrong kinds of meat.
Meda Granthi (Fatty tissue)/Arbuda	Soft, fatty tumor, but movable. Symptoms similar to imbalanced Kapha Dosh, usually grow in proportion to body growth. If pricked, exudes a coppery, white, or black fatty fluid.	Intake of too much fat, whereupon Vata transport it to the muscle tissue or skin
Asthi Granthi (Bone tissue)/Arbuda	Tumor growth outside of the normal area of the bone	Fractures or injuries to the bone, which accumulate Vata.
Sira Granthi (Channels)/Arbuda	Vascular tumors are painless and do not contract, dehydrating, deformation.	Overexertion, severely accumulated Vata weakens the blood consistency, which enters the channels of the body

Conclusion-

During the study of comparing the modern and ancient science considering cancer we found that both science has done a relevant study in the field. *Arbuda* has the resemblance with the 'Cancer disease' considering the symptoms and *sadhya sadhyatva* mention in text. So, *Arbuda vyadh* mention in the ayurvedic text can be compare with modern disease Cancer.

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