

Malignancy—Ayurvedic Concepts and its Holistic Management

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Abstract

Malignant diseases were known to mankind since long; ancient texts narrate the disease in detail with their grave prognosis. The present modern scientific studies have been started few centuries ago with the objective of destroying malignant tissues with different means and methods. These cytotoxic methods often have grave adverse complications and metabolic impairment that result in distressing quality of life. The quest for treating has been continuing since ages but Ayurveda believes in holistic management. There were numerous primary literary evidences that narrates that malignant disease has been dealt in detail with different names; the commonest name was coined as Arbuda (SOL) meaning stony hard mass due to morbid Kapha, Medas and Mansa.

Ayurveda narrates the approach of management with primary objective of reduction in size of tumour, symptom relief and provide quality life. The approach of management is primary medicinal management, if it fails parasurgical measures—Agni & Kshra and lastly surgical removal of tumour is employed.

In this paper medicinal management and clinical success in treating few cases of the disease has been described in detail.

Keywords: malignancy, Ayurveda, diseases

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INTRODUCTION

Malignant disease has been the oldest disease known to mankind. The disease is described in ancient Ayurveda classics such as *Charaka Samhita* (1500 BC) and *Sushruta Samhita* (1500 BC) as “Arbuda”. Arbuda refers to neoplasms; the malignant neoplasms have been coined the names Raktarbuda and Mansarbuda by *Sushruta Samhita*. The scientific studies have been taken by ancient Ayurvedic scholars since 1500 BC; different treatment has been tested viz. medicinal management, parasurgical management, and surgical management. The hierarchy of cancer treatment has been given as medicinal management followed by parasurgical management and lastly surgical management. As the general rule, Ayurveda of management essentially subside complaints of disease and correct histopathological changes and restore them to normalcy but doesn't produce any adverse reaction or disease. Use of cytotoxic management for malignancy often has adverse or dreaded complications.

Cytotoxic measures such as chemotherapy or radiotherapy destroys malignant cells but produces altered reactions that have been observed to be even more harassing. Ayurveda management can be done together for better care of cancer patients. Cytotoxic measures destroy cancer cells and Ayurveda management corrects immune mechanism and host defence mechanism that arrests progression of cancer secondary.

Word ‘Arbuda’ was derived from the word ‘Arbuda’ means stony hard mass. Arbuda of Aravali range has been identified as the oldest mountain ranges and hardest stone known. The irregular and uncontrolled growth of cells eventually leads to undifferentiated growth that may get the shape of lump or a neoplasm. There is quarrel for nutrition; the cancer cells have very high metabolic rates as compared to normal cells, thus produces starvation in normal tissues. This important feature of pathogenesis is given importance to management of cancer. Cell division was first described by Acharya Charaka in 1500 BC—cell division is governed by *Vayu*

and *Karma-Svabhava* i.e., *Vayu* (a biohumor), and *Karma-Svabhava* (natural phenomenon) [1]. Tridosha is the fundamental concept of Ayurveda, *Vata* is one of the them; broadly it may be stated that *Vata* is responsible for all types of movements, maintaining normal flow amongst body tissues, transport of nutrition and waste products, division, multiplication, etc. *Pitta* is responsible for all types of transformation within the body; they may be correlated with enzyme or hormone and lastly *Kapha* or *Sleshma* works against the corrosive action of the other two humors. Nutrition and growth is the conjunction effect of all the three *Doshas*; *Vata* regulates nutrition flow, *Pitta* enables transformation and *Kapha* provides necessary medium and structural entity. *Vayu* being the most important and potent amongst the three hence also named as life (*Prana*) and its derangement leads to disease of grave nature.

Cellular injury and adaption was dealt by Acharya Charaka with concept of *Prasad* (beneficial necessary for body) —*Mala Bhoota* (potentially hazardous) *Dhatu* i.e., the body tissues, humours, biochemical entities that were within their physiological limits maintains the status of health. The aging cells, tissues, nonmetabolised, intermediate product of metabolism, accumulated body waste and nonharmonious tissues were named as *Mala Bhoota Dhatus* as they are potentially hazardous and produce morbid condition with first pathological change in the tissue atmosphere as cellular adaption. When the exposure to these stressors continue cells fails to restore and leads to permanent changes or cellular death [2]. Cell division as narrated above is governed by two processes that are governed by *Vayu* and *Karma-Svabhava*. *Karma-Svabhava* literally means natural phenomenon that is governed by genes and *Vayu* takes the following action separately [3]. The uncontrolled and differentiated growth of cells happens due to vitiation of *Mansa Dhatu* (muscular tissues) and *Kapha*—when these two body entities gets vitiated with *Vayu* and *Karma-Svabhava* leads to development of neoplasm anywhere within the body. The stages of development of the disease starts with the stage of accumulation of morbid material in any one area; this is referred as stage of *Sanchaya*; in this stage symptoms are

not clear. If the morbid material remains untreated and morbidity continues to increase it leads to stage 2 of *Prakopa* vitiation where morphological changes may start, neoplasia changes become visible that may be confirmed by histopathological assay. If the growth is not arrested it leads to changes of hyperplasia and failure of differentiation and invasion to nearby tissues initiates. Prodromal signs become evident, but the disease remains in preclinical phase only. If proper nutritional care is taken to improve host defence mechanism and nutritional principle arrest the growth of cancer and its spread. The medicinal measures help to improve host defence thus denatures cancers cells. If the disease is not arrested in this phase it leads to clinical evident disease as the cancer cells spread to nearby tissues through blood stream or lymphatics. Acharya Sushruta narrates two deadly neoplasms viz., *Mansarbuda* and *Raktarbuda*. The disease clinically manifests, neoplasm develops and increases in size and produces characteristic symptoms. Ancient Ayurvedic surgeon Sushruta opined that any new growth i.e., neoplasm or SOL developing in any area of the body tissue having developed due to vitiated *Mansa Dhatu* (muscular tissues or muscular proteins) and its amalgamation with other morbid body humours i.e., *Kapha* and *Vata* results in immovable body tissue mass mostly presenting with dull pain, deeply seated and suppurates on prolonged duration. This growth produces swelling in any area that is known as *Arbuda* [4]. The malignant *Arbuda* has been classified by Acharya Sushruta as *Raktarbuda* and *Mansarbuda* on the basis of their histopathological difference and methodology of their spread. *Mansarbuda* is the result of exposure to chronic irritation or trauma, leading to changes in *Mansa Dhatu* (chronic irritation leads to formation of plastic tissues that replaces elastic tissues; this is the primary change due to change in DNA that triggers the uncontrolled growth of cells that fails to differentiate and thus forms a lump i.e. cancer) [5–7]. This histopathological change leads to *Mansa Dusti* (*Adhimansa*—muscular enlargement, *Arbuda*—neoplasm, *Kila*—*Galashaluka*, *Putimansa*, *Galaganda*, etc.) [8]; this results in swelling or SOL. This SOL is painless (*Avedanam*), *Snigdha* (unctuous),

Ananya Varnam (similar colour to nearby tissues), *Apakam* (nonsuppurate), *Ashpomama* (stony hard mass), *Aprachalyam* (immovable). This type of tumours usually spreads into nearby tissues or through lymph. This may be correlated with carcinoma like bronchogenic carcinoma, rectal carcinoma, epithelioma, myoma, etc. [9].

The second tumour described by Acharya Sushruta was *Raktarbuda* that result in histological change produced due to vitiated *Mansa* and *Rakta* (*Rudhir*—blood); the morbid

material i.e., cancer cells spreads through blood stream. These tumours resemble muscle lump, or mole; may bleed or ooze; blood loss or anaemia is a usual feature [10, 11]. These are mostly sarcoma or soft tissue tumours. These tumours have tendency to grow and spread to various parts of the body. Acharya Sushruta narrates them as *Dwirbuda* that occur in the same place after removal of the primary neoplasm (second growth), and that occur in nearby area or distant area as *Adhyarbuda* i.e., metastasis [12].

Table 1: List of the Word that has Correlation with Malignant Disease According to *Charaka Samhita* (1500 BC).

Sr	Disease	Reference	Quotation from the text (Charaka Samhita)	Correlation
1	Sannipat Gulma	Chikitsa Section Chapter 5/17	mahārujam dāhapaṛitamaśmavadghanōnnatam śīghravidāhi dāruṇam ma naḥśarīrāgnibalāpahāriṇam tridōṣajam gulmamasādhya mādiśēt 17	Abdominal tumour
2	Alasaka Kustha	Chikitsa section Chapter 7/23	kaṇḍūmadbhiḥ sarāgaiśca gaṇḍairalasakam citam sakaṇḍūrāgapīḍakam 23	Skin cancers
3	Pleehodara	Chikitsa section chapter 13/36-37	vāmapārśvāsritāḥ plīhā cyutaḥ sthānāt pravardhatē śōṇitam vā rasādibhyō vivṛddham taṁ vivardhayēt 36 tasya plīhā kaṭhinō'sthilēvādaḥ vardhamānaḥ kacchapasaṁsthāna upalabhyatē; sa cōpēkṣitaḥ kramēṇa kuḥṣim jāṭharamagnyadhiṣṭhānam ca parikṣipannudaramabhinirvartayati 37	Hepatocellular carcinoma/splenic tumours
4	Arsha	Chikitsa section chapter 14/30		Rectal tumours
5	Granthi Visarpa	Chikitsa section chapter 21/39	tatra vāyuh ślēṣmaṇā vibaddhamārgastamēva ślēṣmāmanēkadhā bhīndan kramēṇa granthimālām kṛcchrapākasādhyām kaphāśayē sañjanayati, utsannaraktasya vā pradūṣya raktam sirāsnāyumaṁsatvagāśritam granthīnām mālām kurutē tivrurājānam granthi visarpaḥ 39	Lymphatic leukemia /lymphoma/Hodgkin's disease
6	Varna	Chikitsa section chapter 25/11	stabdhaḥ kaṭhinasamsparsō mandasrāvō'titivruruk tudyatē sphurati śyāvō vranō mārutasambhavaḥ 11	Malignant ulcers
7	Kumbha kamala	Chikitsa section chapter 16/37	kālāntarāt kharībhūtā kṛcchrā syāt kumbhakāmalā kṛṣṇapīṭasakṣmūtrō bhṛṣam śūnaśca mānavah 37	Hepatic tumours
8	Mahayoni	Chikitsa section chapter 30/35-37	viṣamam duḥkhaśayāyām maithunāt kupitō'nilah 35 garbhāśayasya yōnyāśca mukham viṣṭambhayēt striyāḥ asarivṛtamukhī sārī rūkṣaphēnāsra vāhīnī 36 māmsōtsannā mahāyōniḥ parvavaṅkṣaṇāśūlinī 37	malignant disease of vagina, genitals and uterus/ovary
9	Mutrasthila	Siddhi section chapter 9/36	ādhmāpayan bastigudam ruddhvā vāyuscalōnnatām kuryāttivṛtīmaṣṭhīlām mūtraviṇmārgarōdhinīm 36	Urinary tract malignant tumours, prostatic carcinoma, scrotal malignant tumour
10	Vatasthila	Indriya section chapter 10/4	vātāsthīlā susarivṛddhā tiṣṭhantī dāruṇā hṛdi tṛṣṇayā'bhiparīṭasya sadyō muṣṇāti jīvitam 4	Malignant tumours of sternal/chest

Over and above Arbuda ancient Ayurvedic text *Charaka Samhita* (1500 BC) narrates malignant disorders with different words that may be tabulated in Table 1.

APPROACH TO PATIENT

Treatment and management of the patient suffering from malignant disease ought to be holistic and patient—individual oriented and not mere anti cancerous—cytotoxic management. This approach is named as *Tachchadhikarana* in Ayurveda—the holistic treatment—management is planned with the objectives to check and arrest growth of the malignant cell, improve host defence mechanism, felicitate free radical and cancer cells scavenging, ensuring quality life and maintaining general health status and performing routine functions without any assistance and ease, maintaining regular bowel activity, normal appetite, sleep and awakening, with use of medicinal measures, therapeutic purification (*Panchakarma*), *Kshra Dagdha* (denaturing cancer cells and tumours with alkalis), *Agni Karma* (denaturing cancer cells and tumours with burning—Cauterization).

Whilst planning the treatment and selection of medicament or procedure these key points are observed. Selection of drug Varuna (*Crataeva nurvala*) is the drug of choice that is having antitumour properties. Wagh and Gaikwad observed antitumour activity in their work on evaluation *in vitro* anti-tumour activity of *Crataeva nurvala* on different tumours [13]. The drugs has free radical scavenging activity that was reported as “Crataeva nurvala leaf is a rich source of polyphenols which can be better extracted quantitatively in mixtures of Ethyl acetate + Methanol + Water and Methanol + Water + Acetic acid. The medicinal values of the plant leaf are based on its potent antioxidative effect against *in vitro* chemical induced free radical generation and lipid peroxidation. Isolation, characterization and exploration of specific phenolic component responsible for such useful effect are recommended before further incorporation of the bioactive components in medicine [14]. Acharya Sushruta narrated drugs having antitumour activity as Varunadi Ghana viz. Varuna (*Crataeva nurvala*), Artagala, Shigru (*Moringa Oleifera*), Mesha Shrungha

(*Gymnema sylvestre*), Putika, Naktamala, Morato, Agnimantha (*Clerodendrum phlomidis*), Chitraka (*Plumbago zeylanica*), Shatavari, Bilva, Apamarga, and Bilva [15]. Khazim Al-Asmari *et al.*, observed anticancerous activity of *Moringa oleifera* and opined “*Moringa oleifera*, a common vegetable plant in many Asian and South East Asian countries possessing numerous compounds with excellent health benefits including anti-oxidant and anticancer properties. The plant exhibits anticancer potential by interfering with the signal transduction cascade that promotes cancer cell proliferation and progression [16]. Arunachalam *et al.* in their study concluded that “Our results show that the anticancer properties of the bioactive compounds of *G. sylvestre* can be enhanced through biofunctionalizing the SNPs using the bioactive compounds present in the plant extract without compromising their medicinal properties” ; they observed better cytotoxic activity than Verocell [17]. *Clerodendrum phlomidis* possess antioxidant property [18] and most importantly immunomodulatory activity [19] that helps in controlling the growth of cancer cells. Hiradeve *et al.*, in their study evaluated anticancer activity of *Plumbago zeylanica* Linn leaf extract and observed that ethanolic extract of *Plumbago zeylanica* Linn possess significant anticancer activity and also reduces elevated level of lipid peroxidation due to higher content of terpenoids and flavonoids. Thus ethanolic extract of *Plumbago zeylanica* Linn could have vast therapeutic application against cancer [20].

Therapeutic procedures also known as *Panchakarma* viz., *Vamana* (therapeutic emesis), *Virachana* (therapeutic purgation), *Niruha* (decoction enema—nonretention enema), *Anuvasana* (unctuous enema—retention enema) and *Shirovirechana* (nasal administration) or *Raktavaseka* (therapeutic blood letting) that may be used as per the needs after detailed examination of patient. This includes examination of *Prakruti* (constitution of body, tissue, physical and mental constitution), *Vikruti* (pathological change), *Sara* (essence of body tissues—*sapta Dhatu* and *Satva*), *Samhanana* (built),

Pramana (measurements), *Satmya* (wholesome), *Satva* (psyche), *Aahara Shakti* (digestion and appetite), *Vyayam Shakti* (exercise strength), and *Vaya* (age—life expectancy) [21]. These procedures were taken up after due preparation of patient, i.e., *Purvakarma* by using that makes ease of scavenges free radicals, and morbid material (cancer cells may) to alimentary canal and eliminating them out by the means of *Vamana* or *Virechana*.

Parasurgical procedures such as *Agni Karma* (cautery) and *Kshra* (alkali) application is used to burn out the neoplasm. *Agni Karma* is performed on external areas; it burns and denatures and is most importantly useful in malignant ulcers. *Kshra* (alkali) can be used externally and internally. *Kshra* was used to detoxify and denature morbid cells, the application procedure ought to be done precisely and pin-pointed to achieve desired results. Surgical procedures were usually done for radical removal of tumour mass followed by *Brihana Chikitsa* to improve general wellbeing, digestion, metabolism and quality of life.

CASE 1 (CASE OF CAROTID BODY TUMOUR)

A patient aged 60 years having negative family history of malignancy presented with tumour mass in the neck region. Patient has marked loss of weight (>10 kg wt. loss within a fortnight), difficult in deglutination, pain, and anaemia. Patient was examined and evaluated by ultrasound that suggested ceratoid body tumour. Patient was advised for surgical removal but unfortunately that procedure was not successful and patient's medical problem remained unsolved. Patient was taken for Ayurvedic management; patient was examined thoroughly by ten-fold examination before starting Ayurvedic management. Patient was diagnosed as *Gala Pradesha Mansa Arbuda* with dominance of *Vata*, *Rakta*, *Kapha* and *Mansa*. The general condition at BT was debilitating illness, loss of appetite, improper defecation, anaemia and difficulty in deglutination. Patient was conscious, but bed ridden, was able to do normal routine with great difficult and assistance, all vitals were normal. Patient was

managed with the objectives of reduction in chief complaint (improvement in presenting symptom), clinical recovery (reduction in size of tumour), improvement in general health and quality of life and improvement in digestion, sleep & awakening, mental wellbeing. Table 2 shows improvement in signs and symptoms.

Table 2: Improvement in Signs and Symptoms.

	BT	AT	
	27/12/2014	24/12/2015	23/12/2016
SOL size	53*35*34 mm	41*32*34 mm	41*31*26 mm

CASE 2 (CASE OF MAHASUASIRA—CANCER ORIS)

An old age male patient aged 62 years presented with characteristic nonhealing ulcer and growth on right chick, buccal cavity of the patient was diagnosed as poorly differentiated— buccal cavity alveolus cancer. There was marked bleeding and pus discharge, difficult in deglutination, weight loss, loss of appetite, and marked apathy. According to Ayurveda, there were no signs of secondary or metastatic lesion. The patient was diagnosed as *Shushira* (alveolus cancer right buccal cavity)—type *Raktarbuda*. Patient was managed conservatively with oral medication to check growth of cancer, decrease tumour mass, reduction of oozing and improve general health status. The patient was treated with *Varunadi* drugs in the form of decoction, with powdered drug containing *Shatavari* (A. Racemose) 1 g + *Yastimadhu* (G. glabra) 1 g + *Dhatriloha* 125 mg to be taken thrice a day before meals with honey. *Shankhavati* (classical ayurvedic medicine) 1 tab after meal was given to improve appetite and digestion. Patient was advised for regular follow up after 20 days. Figure 1 shows evident improvement in size of tumour, oozing, pus discharge and associated symptom. Patient has discontinued treatment against medical after a course of approximately 50 days of medication but till that time of 50 days patient's symptoms reduced haematological reports shown improvement with increased haemoglobin concentration and all other parameters. In the short span of time the results were encouraging and suggest further clinical trials to come up with possible cure.



Fig. 1: Size of Tumour, Oozing, Pus Discharge and Associated Symptom.

CASE 3 (CASES OF GLIOBLASTOMA 2 CASES)

Two patients of Glioma—glioblastoma one from Chennai and other from Gondal was treated with Ayurveda medicines. A patient middle-aged man from Chennai was suffering from termers, headache and convulsion. In March 2015 patient was examined at Chennai hospital and found to be suffering from glioblastoma. Patient was operated but denied for chemotherapy or radiotherapy owing to known side effects. Patient was examined according to Ayurveda and all vitals were normal, patient was conscious & oriented, having normal appetite, bowels, weight 55 kg, normal built, patient has complaints of headache, occasional termers. Histopathological and magnetic resonance imaging (MRI) reports were opined high grade glioblastoma. Patient was started with oral conservative ayurvedic medication to improve clinical symptom, to prevent secondary & metastasis, improve general health and quality of life, normal appetite, and bowel. Patient was diagnosed as *Indriya Pradesh* Arbuda Mansarbuda type, as the focus of the disease is *Indriya Sthana* (brain area) classical antitumour (Varunadi Ghana Kwath) was given along with *Medhya Rasayana* (mental health promoting drug)—combination of *Shankhpushpi*, *Brahmi* (*B. munnari*), *Yastimadha* (*G. glabra*), and *Vacha* (*C. rotandus*) in equal quantity 3 g per day in three divided dosages with warm water. *Shatavari* (*Asparagus racemosa*) tablets (500 mg) 2 tab was given three times along with *Shankhavati* 1 tab twice a day after meal was given. Patient was advised to perform *Nasya*—nasal administration of cow's ghee (5–5 drops each nostrils) twice a day. Patient was advised to undergo follow-up MRI every half yearly to check status of tumour (residual tumour). Patient responded well with the ayurvedic

medicine with marked improvement in presenting symptom was noted within a short period of treatment course. Periodical assessment with MRI showed no progress in disease and reported static lesion. This implies that secondary or metastasis has not taken place. The second patient from Gondal was also managed with similar drugs but addition of a combination of *Jivaniya Ghana* & *Brihana* drugs to improve nutritional status. The chief composition was *Ashwagandha* (*W. sominiera*), *Shatavari* (*A. racemosa*), *Jivaka*, *Rushabhaka*, etc. This patient has not been operated and was treated with Ayurveda medicine only. Patient responded well with Ayurveda medicine and MRI had shown minimal reduction in mass lesion with marked clinical recovery.

CASE 4 (CASES OF BRONCHOGENIC CARCINOMA)

An old patient (62 male) suffering with dyspnoea on exertion, coughing, chest pain, occasional haemoptysis, the family history nonsignificant for malignant disease, past history was also nonsignificant. Patient was farmer by profession living in village near Jamnagar Gujarat India. Patient was diagnosed at cancer hospital Rajkot. Patient refused for chemotherapy and opted for Ayurveda management. The MRI scan reports of the patient were clearly showing SOL in lungs with diagnosis of bronchogenic carcinoma. Patient was diagnosed as *Pranavaha Srotas Gata Mansarbuda*. Taking lung parenchymal as root of *Prana Vaha Srotas* (respiratory apparatus) the *Swasa Roga Chikitsa* along with antitumour medicine; patient was given *Mahasudarshana Ghanvati* and *Lakshmi Vilas Rasa* (both classical Ayurveda medicine used for more than 500 years). Patient was advised to perform massage of *Saindhav Taila* (medicinal oil) on chest and back followed by

Table 3: Effect on Symptoms/ Haematological Parameters and SOL Measurement.

	BT	AT						
	Sept 2016	Oct 2016	Dec 2016	Feb 2017	Apr 2017	Jun 2017	Aug 2017	Oct 2017
Dyspnoea	Present	Present	Absent	Absent	Absent	Absent	Absent	Absent
Orthopnoea	Present	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Pain	Present	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Debility	Present	Reduced	Absent	Absent	Absent	Absent	Absent	Absent
Haemoptysis	Present	Absent	Absent	Absent	Absent	Absent	Absent	Absent
Appetite	Impaired	Improved	Normal	Normal	Normal	Normal	Normal	Normal
Weight	38 kg	39 kg	42	45	45	47	49	49
BMI	16	16.4	17.68	18.9	18.9	19.7	20.6	20.6
Hb	9	9.5	10	10	10.5	11	11	11
TLC	11000	9000	7000	7000	7000	7000	7000	7000
RBC	3.5	3.8	3.9	4	4	4	4	4
ESR	42	25	12	12	12	12	12	12
MRI report	SOL suggesting bronchogenic carcinoma							No change with no evidence of metastasis

fomentation by hot water bag in morning and evening for ten minutes. Patient was advised to stop fomentation if haemoptysis develops but continue massage. Patient was examined every 15 days for changes. Patient started responding well with the treatment with reduction in symptoms of dyspnoea, orthopnoea, haemoptysis, debility and appetite. Follow up MRI shown no change in the size of lesion and no new lesion was observed, USG abdomen was normal, haematological reports were normal (Table 3).

DISCUSSION & CONCLUSION

There are many clinical success stories, the disease has been narrated centuries ago scientifically. The difference between present approach of use of cancerotoxic–cytotoxic agent that has adverse reaction and patient's general wellbeing and quality is adversely affected whereas use of Ayurveda drugs in many instances has not only corrected problem but also improved quality of life. In all cases of cancer one thing must be remembered that original status of tissues may not be attained and thus it is described as *Asadhya* (incurable) in Ayurvedic classics but relief may be given to patient, quality of life may be ensured. In all cases of cancer early diagnosis is essential. Last but not the least a physician can add life to years but can't add years to life.

REFERENCES

1. “śarīrāvayavāstu paramānubhēdēnāparisaṅkhyēyā bhavanti, atibahutvādatisaukṣmyādātīndriyatvācca| tēṣāṁ saṁyōgavibhāgē paramānūnām kāraṇaṁ vāyuh karmasvabhāvaśca||17||”
2. “śarīraguṇāḥ punardvividhāḥ saṅgrahēṇa-malabhūtāḥ, prasādbhūtāśca| tatra malabhūtāstē yē śarīrasyābādhakarāḥ syuḥ| tadyathā-śarīracchidrēṣūpadēhāḥ pṛthagjanmānō bahirmukhāḥ, paripakvāśca dhātavaḥ, prakupitāśca vātapittaślēśmāṇaḥ, yē cānyē'pi kēciccharīrē tiṣṭhantō bhāvāḥ śarīrasyōpaghātāyōpapadyantē, sarvāmstānmalē saṅcākṣmahē; itarāmstu prasādē, gurvādīmśca dravāntān guṇabhēdēna, rasādīmśca śukrāntān dravyabhēdēna||17|| Ch. Sha. 6/17
3. “athaitē viśayakalitāḥ paramānavaḥ katham śarīrārambhē saṁyujyantē, śarīravinaśē ca viyujyanta ityāha – tēṣāmityādi| nanu yadi vāyuh kāraṇaṁ paramānūnām saṁyōgavibhāgē, tat kimiti sarvadā tau na karōṭītyāha – karmasvabhāvaścēti| na kēvalō vāyuh kintu karmasvabhāvaparigrhīta ēva| tēna yadā saṁyōjakasvabhāvēna karmaṇā parigrhītō vāyurbhavati tadā paramānūnām saṁyōgaṁ kurvañcharīramārabhatē; yadā tu

- viyōjanasvabhāvēna karmaṇā vāyuḥ
parighṛītō bhavati tadā vibhāgaṃ
paramānūnām vināśarūpaṃ
janayatītyarthah||17||” Acharya Chakrapani
on Ch. Sha. 7/17
4. “gātrapradēśē kvacidēva dōśāḥ
sammūrcchitā māṃsamabhipradūṣya|
vṛttarṇ sthirarṇ mandarujarṇ
mahāntamanalpamūlarṇ
ciravṛddhyapākam||13|| kurvanti
māṃsōpacayarṇ tu śōpharṇ tamarbudarṇ
śāstravidō vadanti||14||” Su. Ni. 11/13-14
 5. <https://www.cancer.gov/about-cancer/causes-prevention/risk/chronic-inflammation>
 6. Feeling the Heat—link between inflammation and cancer. *Cancer Research UK* [Internet]. 2013 Feb 1. Available from: <http://scienceblog.cancerresearchuk.org/2013/02/01/feeling-the-heat-the-link-between-inflammation-and-cancer/>
 7. “...śṛṇu māṃsapradōṣajān||13||
adhimāṃsārbudarṇ kīlarṇ
galaśālūkaśuṇḍikē|
pūtimāṃsāljāṅgaṇḍagaṇḍamālōpajihvikāḥ||
14|| vidyānmāṃsāśrayān,...||15||” Ch. Su. 28/15
 8. “muṣṭiprahārādibhirarditē'ngē māṃsarṇ
praduṣṭarṇ prakarōti śōpham||17||
avēdanarṇ
snigdhamananyavarṇamapākamaśmōpama
mapracālyam| praduṣṭamāṃsasya narasya
bāḍhamētabhāvēnmāṃsaparāyaṇasya||18||
| māṃsārbudarṇ tvētadasādhyamuktarṇ...
||19||” Su. Ni. 11/19
 9. “dōśāḥ praduṣṭō rudhirarṇ sirāstu
sampīḍya saṅkōcya gatastvapakam||15||
sāsrāvamunnahyati māṃsapiṇḍarṇ
māṃsāṅkurairācitamāśuvṛddhim|
sravatyajasrarṇ rudhirarṇ
praduṣṭamasādhyamētabrudhirātmakarṇ
syāt||16|| raktakṣayōpadravapīḍitatvāt
pāṇḍurbhavēt sōrbudapīḍitastu||17||” Su. Ni. 11/15-17
 10. Photo of a cancer patient with bleeding from tumor mass (Mansankura and Shonita Pravrutti)
 11. “yaddvandvajātārṇ yugapat kramādvā
dvirarbudarṇ tacca bhavēdasādhyam ||20||”
Su. Su. 11/20
 12. Wagh NS, Gaikwad NJ: Evaluation of anti - Cancer Activity of Bark of *Crataeva*
Nurvala Buch. Ham against three Cell Lines. *Int J Pharm Sci Res.* 2014; 5(11): 4851–7p.doi: 10.13040/IJPSR.0975-8232.5 (11).4851-57.
 13. Behera PC, Senapati MR. Spectrophotometric assay of Anti-oxidative and Free Radical Scavenging activities of *Crataeva nurvala* leaf extract. *International Journal of PharmTech Research.* 2014; 6(2): 582–8p.
 14. “varuṇārtagalaśīgrumadhuśīgrutarkārīmēṣ
aśṛṅgīpūtikanaktamālamōraṭāgnimanthasai
rēyakadvayabimbīvasukavasiracitraka-
śatāvarībīlvājaśṛṅgīdarbhā bṛhatīdvayarṇ
cēti||10|| varuṇādirgaṇō hyēṣa
kaphamēdōnivāraṇaḥ| vinihanti
śīraḥśūlagulmābhyantaravidradhīn||11||”
Su. Su. 38/11
 15. Al-Asmari AK, Albalawi SM, Ather MT, et al. *Moringa oleifera* as an Anti-Cancer Agent against Breast and Colorectal Cancer Cell Lines. *PloS One.* 2015; 10(8): e0135814. Available from:
 16. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4545797/>
 17. Arunachalam KD, Arun LB, Annamalai SK. Potential Anti-cancer properties of bio-active compounds of *Gymnema sylvestre* and its bio functionalized silver nanoparticles. *Int J Nanomed.* 2014; 9: 31–41p. Available from: https://www.researchgate.net/publication/264555755_Potential_Anti-cancer_properties_of_bio_active_compounds_of_Gymnema_sylvestre_and_its_bio_functionalized_silver_nanoparticles
 18. Kar P. Antioxidant and Pharmaceutical potential of *Clerodendron L.*: An overview. *IJGP.* 2014; 4: 1–7p. Available from: http://www.academia.edu/8107603/Antioxidant_and_pharmaceutical_potential_of_Clerodendron_L._An_overview
 19. <http://interscience.org.uk/v4-i5/10%20ijahm.pdf>
 20. Hiradeve S, Danao K, Kharabe V, et al. Evaluation of anticancer activity of *Plumbago zeylanica* Linn leaf extract. *Int J Biomed Res.* 2010; 1(2): 66–71p. Available from: <http://www.ss-journals.com/index.php/ijbr/article/view/609>

21. tasmādāturaṁ parīkṣēta prakṛtitaśca,
vikṛtitaśca, sārataśca, saṁhananataśca,
pramāṇataśca, sātmyataśca, sattvataśca,
āhāraśaktitaśca, vyāyāmaśaktitaśca,
vayastaścēti,
balapramāṇaviśēṣagrahaṇahētōḥ||94

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