

## AYURVEDIC DESCRIPTION OF LUNG CANCER W.S.R. TO SROTODUSTI

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### ABSTRACT

*Ayurvedic* Medicine is about restoring balance and allowing the body's inherent self-healing process to occur. Many of today's most advanced medical techniques are based on *Ayurvedic* Medicine. "The normal microenvironment prevents premalignant cells from becoming completely malignant. But when the microenvironment becomes abnormal, it not only allows these cells to become malignant, but also may initiate tumors." This microenvironment is clearly described in *Ayurvedic* texts in form of *srotas*, and lung cancer is directly linked to *pranavah srotas*. Understanding lung cancer with *Ayurvedic* perspective and planning treatment modalities for integrated approach will help in vanishing the disease.

**Keywords:** *Pranavaha srotas, Phupphusa, siragranthi, srotodusti*, lung cancer.

### INTRODUCTION

The word '*srotas*' is derived from '*Su-sravane*' means which to ooze, to exude, to permeate, and filter. '*Sravanat-srotamsi*' means the nutrients are supplied to the tissues through process of transduction and at this level, they are known as *srotas*.<sup>1</sup>

*Ayurveda*, the oldest Indian medical system understands cancer as the derangement of *tridosha* as a whole of neuro-humoral, metabolic and nutritional imbalance that causes loss of mutual coordination in homeostasis resulting critical condition in tissue proliferation. *Ayurveda* defines these changes as "*ARBUDA*" a mass of tissue growth independent of function. Origin of *Phupphusa* is "*Shonitaphen prabhavah phupphusah*" described in *Sushrut Samhita*.<sup>2</sup>

The word cancer is derived from the Greek meaning "CRAB" which was used in medical term CANKER

applied to eroding ulcers, means by large no. of prominent veins surrounding a growth suggesting a picture like "claws of a crab".<sup>3</sup> Cancer originates due to metabolic changes. *Vata dosha* is responsible for cell division '*Vayurvibhajati*'.<sup>4</sup> Aggravation of *vata dosha* and suppression of *kapha doshas* or both the *doshas* interacting with one another may result in proliferation of cells. However, the *Ekadesavridhi* (growth at a specific part) is a part of abnormal cell division resulting in benign or malignant tumors.

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not only allows these cells to become malignant, but also may initiate tumors.” This microenvironment is clearly described in Ayurvedic texts in form of *srotas*, lung cancer is directly linked to vitiation of *Pranavaha Srotas* and *Mansavaha Srotas*. Lung Cancer (*Phuphusarbuda*) is the uncontrolled growth of abnormal cells in one or both lungs. These abnormal cells do not carry out the functions of normal lung cells and do not develop into healthy lung tissue. As they grow, the abnormal cells can form tumors and interfere with the functioning of the lung, which provide oxygen to the body via the blood.

#### **Pranavaha Srotas and Mansavaha srotas in classical Texts:**

In Ayurvedic text, 'Hridaya and Mahasrotas' (central cavity or alimentary tract) are the sites of origin (controlling organ) of the channels carrying *Pranavyu* (vital breath). The characteristic manifestations of the vitiation of these channels are too long or too restricted, aggravated, shallow or frequent respirations associated with sound and pain. *Pranavahasrotas* (channels carrying vital breath) get vitiated by wasting, suppression of natural urges, indulgence in unctuous things, performance of exercise while hungry, and such other harmful regimens.<sup>5</sup> Therapies for the treatment of the vitiation of *Pranavaha srotamsi* (channels carrying vital breath, water and food) is the same as those described for the treatment of respiratory disorders.<sup>6</sup> Carrying channels are two, their root being 'Hridaya and Rasavahini dhamanis' if injured, it causes crying, bending, fainting, giddiness, trembling or death.<sup>7</sup> 'Snayu and Twaka' (ligaments and skin) are the sites of origin of the (channels carrying components of muscle tissue) *Mamsavaha srotas*. These channels are vitiated by the intake of deliquescent, gross and heavy food and by sleeping immediately after meals.<sup>8</sup>

#### **SROTODUSTI:**

Four types of manifestation of *srotodusti* occurs viz. *Atipravritti* (increased activity), *Sanga* (obstruction), *Siragranthi* (aneurysm), and *Vimargagamana* (opposite direction).<sup>9</sup> These four types of *srotodusti*

may occur either individually or in combined form. Out of these four, *sanga* or so called *srotorodha*, give rise to most of the diseases.

1. **Atipravritti**- It is defined as *atishayenapravrattithi*. Increased activity of one or more *dhatu*, *doshas*, *srotas*, *malas*. Eg: *Bahumutrata* in **prameha**, *Atidravamalapravritti* in **atisara**, *Rasa dhatuatipravritti* in **Jalodara**, *Atipravritti of rak-tadhatu* in **adhogaraktapitta**.

2. **Sanga**- Also called *srotorodha*, opposite of the *atipravritti*. It is defined as *apravrutti* which means obstruction. Eg: **Mutrakrichra** is *sanga* of *mutrava-hasrotas*, *Swedaavarodha* in **Jwara**, *Sanga of Vata* in **Gulma**, *Sanga of purisha* in **Vibandha** *Sanga of Pitta* due to *kaphaavarana* in- **Shakashrita Kamala**, *Sanga of purisha* in **Grahanipurvaroopavastha** and *Atipravritti of purisha* in **roopavastha**.

3. **Vimargagamana** – It is defined as *Unmargagamana* which means leaving its own path and entering into another path. All the elements like *doshas*, *dhatu*, *malas*, *lasika*, *ambu*, *vasa* can attain *vimargagamana* in different *vyadhis*. Eg: Entering of *mala* into *mutramarga* in **bhagandara**. In **Udavarta** – movement of *apanavata* upwards. In **Chardi** – movement of the food upwards. In **Bhagandara-vimargagamana** *Apanavata*, In **Raktapitta** – movement of *rakta* entering into *mutravaha*, *purishavaha*, *Pranavaha* and *annavahasrotas*.

4. **Siragranthi**- It is defined as **Kutilabhaavatwam** which means thickening, new growth or tumors. Eg: **Granthi**, Varicose veins, Aneurysm of an artery, **Arbuda**, Enlargements found in the bronchioles due to bronchiectasis, **Arshas**.<sup>10</sup>

#### **Causes of lung cancer (Phuphusarbuda):**

In *Ayurveda* different types of *arbuda* are prescribed in various classical texts. These are *vata*, *pita*, *kapha*, *rakta*, *meda* and *mamsarbuda*. Lung cancer can be considered out of them. Most of the features of lung cancer are in parallel to *vatarbuda*, *kapharbuda* and *mamsarbuda*. Broadly the causes of *arbuda* given in Ayurvedic texts can be considered as causes for lung cancer too. Human body is made

up of *tridosha* (*vata*, *pitta* and *kapha*), it is believed that equilibrium of *vata*, *pitta* and *kapha* ensure good health. If any of the factors of *tridosha* gets vitiated due to the changed dietary habit and life style, body become diseased. Excessive use of meat is considered to precipitate the formation of tumor described in *Sushrut Samhita*, *musthi prahar* (trauma) is another important factor for development of *mamsarbuda*.<sup>11</sup> *Vagbhata* emphasizes that factors responsible for excessive formation of muscle and soft tissue (*mams dhatu*) may lead to the development of tumors and other pathological conditions. The genetic cause for the manifestation of cancer is also well documented in *Ayurveda*. Unwholesome diet (*mithya ahara*) and unwholesome regimen (*mithya vihar*) are the main reasons behind the rise in incidence of cancer. Cigarette smoking is undoubtedly the major risk factor for developing of lung cancer and accounts for 85-95% of all cases. To a lesser, extent atmospheric pollution, and certain occupation's (radioactive ore and chromium mining) contribute.<sup>12</sup>

#### **Pathophysiology (Samprapti) of Lung Cancer according to Ayurveda:**

According to Ayurvedic principles, the disease cannot be named on its own because it differs between persons in terms of illness, clinical presentation and also the treatment required. Thus, pathogenesis in Ayurveda is explained on the basis of *Tridoshas*. *Agni* or *Pitta*, which is present in each and every cell, is responsible for digestion and metabolism in human body. The decrease in *agni* is inversely proportional to the related tissue and therefore in *arbuda*, the decreased state of *dhatwagni* (deranged metabolism) will result in excessive tissue growth.

*Vata* can be correlated with the anabolic phase of growth whereas *kapha* to the catabolic phase. Cancer originates due to a metabolic crisis, i.e. aggravation of *vata* forces and suppression of *kapha* forces, both interacting with one another resulting in proliferation. However, the abnormal cancerous growth at a specific organ (*Ekadesavridhi*) is managed by compensation from other parts of the body

(*Anyasthaniyakshaya*), e.g. body weight loss (cachexia). *Sushruta* has proposed six stages in the pathogenesis of all diseases but his concept suits more to the pathology of the tumor than pathogenesis itself.

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### SAMPRAPTI GHATAKA:

*Dosha* : Kapha and Vata predominant  
*Dushya* : Mamsa, Meda and Rakta  
*Srotas*: Prana, Mamsa, Meda and Raktavaha  
*Sroto dushti*: **Atipravritti and Sira granthi**  
*Agni*: Jatharagni & Dhatwagni  
*Rogamarga*: Aabhyantara  
*Udbhavsthana*: Phuphphusa (Lungs)  
*Adhithana*: Sixth layer of the Skin – Rohini<sup>15</sup>  
*Pratyatma Linga*: Mamso Pachaya Tu Shopham

### CONCLUSION:

**Microenvironment** (*Srotas*) so in manifestation of lung cancer *Pranavaha* and *Mansavaha Srotas* play a major role. By knowing pathophysiology of lung cancer according to ayurvedic perspective of *srotas* involvement will lead to better cure of it. Once *srotas* involvement is certain in any type of cancer, it will ultimately constant a roadmap for its treatment. So, while doing treatment of lung cancer one should give emphasis on *Pranavaha Srotas Mamsavaha srotas* mainly. Ones should diet and lifestyle occurrence to give emphasis on *Pranavaha srotas* and *Mamasavaha srotas*.

### REFERENCES

1. Agnivesha, Charaka Samhita, revised by charaka and Dradhabala, edited by Kashinath shastri, Gnagasahaya Pandey, Chaukhambha Sanskrit sansthan, Varanasi, vol.1, reprint 2007, sutra sthana 30/12, pg.-445
2. Sushrut Samhita of maharsi sushrut, Edited with Ayurveda tattva Sandipika by Kaviraj Ambikadutta Shastri forward by pranajivana Manekechand Mehta. Chaukhambha Sanskrit sansthan, Varanasi, reprint Edition 2005, vol.1, sharir sthana 5/25, pg.-41.
3. ETIO-PATHOLOGICAL APPROACH OF CANCER IN AYURVEDIC AND CONTEMPORARY SCIENCE w.s.r. TO SROTAS INVOLVEMENT – A HYPOTHESIS, Kanchan Agrawal<sup>1</sup>, S.R. Saley<sup>2</sup>, <sup>1</sup>PG scholar, Dept. of Rognidan, Govt. Ayurvedic college Nanded, Maharashtra, India, <sup>2</sup>Guide, Professor and HOD, Dept. of Rognidan, Govt. Ayurvedic college Nanded, Maharashtra, India. International Ayurvedic Medical Journal (ISSN: 2320 5091) (October 2017) 5(10).
4. Sushrut Samhita of maharsi sushrut, Edited with Ayurveda tattva Sandipika by Kaviraj Ambikadutta Shastri forward by pranajivana Manekechand Mehta. Chaukhambha Sanskrit sansthan, Varanasi, reprint Edition 2005, vol.1, sharir sthana 5/3, pg.-54.
5. Agnivesha, Charak Samhita edited with Chakrapani Datta's Ayurveda Dipika by Ram karan sharma & Bhagwandas, Chaukhambha Sanskrit series office, Varanasi, Edition-reprint,2012, Vol.2, viman sthana 5/7-10 pg.- 174-177.
6. Agnivesha, Charak Samhita edited with Chakrapani Datta's Ayurveda Dipika by Ram karan sharma & Bhagwandas, Chaukhambha Sanskrit series office, Varanasi, Edition-reprint,2012, Vol.2, viman sthana 5/26, pg.-180.
7. Sushrut Samhita of maharsi sushrut, Edited with Ayurveda tattva Sandipika by Kaviraj Ambikadutta Shastri forward by pranajivana Manekechand Mehta. Chaukhambha Sanskrit sansthan, Varanasi, reprint Edition 2005, vol.1, sharir sthana 9/12, pg.-96.
8. Agnivesha, Charak Samhita edited with Chakrapani Datta's Ayurveda Dipika by Ram karan sharma & Bhagwandas, Chaukhambha Sanskrit series office, Varanasi, Edition-reprint,2012, Vol.2, viman sthana 5/15, pg.-178.
9. Agnivesha, Charak Samhita edited with Chakrapani Datta's Ayurveda Dipika by Ram karan sharma & Bhagwandas, Chaukhambha Sanskrit series office, Varanasi, Edition-reprint,2012, Vol.2, viman sthana 5/24, pg.-180.
10. SROTO VAIGUNYA, SROTO DUSHTI AND SROTO VIDDHA – A CONCEPTUAL STUDY, Gayathri.H<sup>1</sup>, Byresh.A<sup>2</sup>, PG scholar<sup>1</sup>, Professor & Guide<sup>2</sup>, Department of PG studies in kayachikitsa, SKAMCH & RC Vijaynagar, Bangalore, india (ISSN: 2320 5091) (July, 2017) 5(7).
11. Sushrut Samhita of maharsi sushrut, Edited with Ayurveda tattva Sandipika by Kaviraj Ambikadutta Shastri forward by pranajivana Manekechand Mehta. Chaukhambha Sanskrit sansthan, Varanasi, reprint Edition 2005, vol.1, nidan sthana 11/18-20, pg.-354.
12. Norman S Williams, Christipher JK Bullstrode, and P Roman O'Connell, Bailey & Love's, Short practice of Surgery, Chapter-9, The Thorax, 26<sup>th</sup> edition, CRC Press- Taylor & Francis Group, pg.-859.

13. Sushrut Samhita of maharsi sushrut, Edited with Ayurveda tattva Sandipika by Kaviraj Ambikadutta Shastri forward by pranajivana Manekechand Mehta. Chaukhambha Sanskrit sansthan, Varanasi, reprint Edition 2005, vol.1, nidan sthana 11/13-20, pg.-352-354.
  14. Sushrut Samhita of maharsi sushrut, Edited with Ayurveda tattva Sandipika by Kaviraj Ambikadutta Shastri forward by pranajivana Manekechand Mehta. Chaukhambha Sanskrit sansthan, Varanasi, reprint Edition 2005, vol.1, sutra sthana 21/18-35, pg.-117-121.
  15. Sushrut Samhita of maharsi sushrut, Edited with Ayurveda tattva Sandipika by Kaviraj Ambikadutta Shastri forward by pranajivana Manekechand Mehta. Chaukhambha Sanskrit sansthan, Varanasi, reprint Edition 2005, vol.1, sharir sthana 4/4, pg.-37.
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