

## ***A PHYSIOLOGICAL STUDY OF ADHARANEEYA VEGA W.S.R. TO APANAVAYU VEGA***

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### **ABSTRACT**

Many diseases which are prevalent in the present time are because of the improper life style of the people. *Vegadharana* and *Udheerana* are the two such faulty lifestyle practices which are responsible for many diseases. This information is often missed during the history taking. Even though it is one of the fundamental concepts of *Ayurveda*, it is very less understood. Understanding the physiology of *Vegapravartana*, study of *Vegarodhajanya* and *Udeeranajanya* symptoms and analyzing them in the study of pathology of various diseases are really helpful to plan the complete treatment. In addition, to this topic designed to give special reference to *Apanavayu Vega*. In the current clinical practice of *Ayurveda*, we come across many diseases related with the *Apanavayu*. We treat them without analyzing the *Nidana* part. So many disorders reoccur even after the proper medication for the fact that *Nidana* has not been addressed properly. So in view of understanding physiology of *Apanavayu Vega* and its applied physiology this study has its own significance to revalidate this aspect.

**Keywords:** *Adharaneeya vega, Apanavayu vega, Vegadharana, Udheerana*

### **INTRODUCTION**

To maintain the health and to protect from the diseases *Ayurveda* has described *Ahara* and *Vihara* in detail. Out of these, *Ahara* is most fundamental and everyone is very much aware of it. But most often *Vihara* falls in the neglect part. Mainly *Vihara* is of two types i.e. *Nitya Kaliana* and *Anitya Kaliana*. *Nitya Kaliana*

*Vihara* includes *Dinacharya*, and *Ritucharya*. *Anitya Kaliana Vihara* includes *Vegadharana*, *Udeerana*, *Shodanam*, *Brihanam*, and *Bhoota-disparshanam*. Commentator Hemadri says *Vega*<sup>1</sup> as “*Vega Pravrutrunmukhtvam vegah*”. I.e. *Vegas*<sup>2</sup> are the urges generated naturally by the body. Some are left off to be

eliminated out from the body (*Mootra, Pureesha, etc.*), and others are to be attended and satisfied with the proper fuel (*Kshut, Trut, Nidra*). It is the normal function of the *Vata dosha*.

Concept of *Vega* is the fundamental and important concept of *Ayurveda*, so it is important to respond to these *Vega* and not suppress them. *Ayurveda* explains two types of natural urges in general i.e. *Dharaneeya vega* and *Adharaneeya vega*. Out of these the urges which are not being withheld or suppressed are called *Adharaneeya vega*; those which are to be suppressed called *Dharaneeya vega*. *Adharaneeya vega* are mainly fourteen in number namely *Vata* (flatus), *Vit* (faeces), *Mootra* (urine), *Ksavathu* (sneeze), *Trushna* (thirst), *Kshudha* (hunger), *Nidra* (sleep), *Kasa*<sup>3</sup> (cough), *Shrama Shwasa* (dyspnoea), *Jhrumbha* (yawning), *Ashru* (urge of cry), *Chhardi* (vomitus), *Retas* (urge of semen). *Dharaneeya vega* mainly consists of *Lobha, Irshya, Dvesha, Maatsarya etc.* Out of all the *Adharaneeya vega*, the most commonly suppressed are, *Vega* which is produced by *Apanavayu*. This includes *Adhovata, Mootra, Pureesha*, and also *Shukra Vega*. Suppression this *Apanavayu Vega*<sup>4</sup> causes various symptoms like *Udavarta, Adhmana, Klama, Malavarodha, Mutrarodha, Koshtashoola, Dushtivadha, Agninasha and Hridroga etc.* *Apanavayu* suppression through anyone of the above mentioned *Vegarodha* causes its *Dusti*. *Apanavayu dusti* in general covers wide range of diseases. This is the reason why it is important among all the *Vega* so far as the applied part is concerned.

### **Aims and Objectives:**

- Physiological study of *Adharaneeya vega*
- Detailed physiological study of *Apanavayu vega* and its *Vegadhara-nasjanya* symptoms
- Contemporary modern understanding of the above concepts
- Conceptual study of applied/clinical importance of *Apanavayu vega* with in *Dharana* and *Udeerana*.

### **REVIEW OF LITARATURE:**

#### ***Adharaneeya vega:***

*Vegas* are the urges generated naturally by the body. Some are left off to be eliminated out from the body (*Mootra, Pureesha, etc.*), and others are to be attended and satisfied with the proper fuel (*Kshut, Trut, Nidra*). Concept of *Vega* is the fundamental and important concept of *Ayurveda*, so it is important to respond to these *Vega* and not suppress them. Among fourteen *Adharaneeya Vega, Apanavayu Vega* is most commonly suppressed and which is produced by *Apanavayu*. This includes *Adhovata, Mootra, Pureesha, Arthava* and also *Shukra vega*. Suppression these *Apanavayu-vega* causes various symptoms like *Udavarta, Adhmanam, Klama, Mala avarodha, Mutra rodha, Koshtashoola, Dushtivadha, Agninasha and Hridroga etc.* *Apanavayu* suppression through anyone of the above mentioned *Vegarodha* causes its *dusti*. *Apana vayu dusti* in general covers wide range of diseases. *Adharaneeya Vega*' is a reflex mechanism and it is a nervous activity.

#### ***Apanavayu Vega:***

Fraction of *Sareera vata*, which has a special tendency to move downwards and to control the functions of lower part of the body, is termed as *Apana vata*. It controls the emission of *Shukra*, *Arthava*, *Sakrit*, *Mootra*, *Adhovata* and *Garbha*. *Susrutha* in *nidana sthana* states that the exact seat of *Apana vata* is the capital place of *Vata* itself i.e., the *Pakwashaya*, where the materials necessary for growth and maintenance of the body are produced and absorbed. *Nishkramana karma* of *Apanavata* is not just limited to the expulsion *Kriya*, but the proper withholding and ejection in the proper direction, in proper time. According to modern medical science, the functions of colon movements related with defecation and farting, process of micturation, ejaculation, physiology of menstruation, delivery of fetus etc. are the similar physiological functions. Which may be correlated the functions of *Apanavayu vega*. A reference is there in the eighth chapter of *Parnaopanisath* that points out the fact that *Dharana* of its *Vishaya* for a short while also is a function of *Apana* in addition to *Nishkramana Karma*. So, it can be said that *Apana Vayu* functions are Parasympathetic in nature. But is cannot be said that All the Parasympathetic functions are performed by *Apana vayu* rather *Apana Vayu* functions are Parasympathetic in nature.

#### ***Apana Vaigunya:***

In the normal stage or *Prakruthavastha*, *Apanavata* performs *Samyak Malamootradi Karmas* and in *Vaigunyavastha* it is one of the main causative factors for many *Vikaras*. Vitiation of *Apanavayu* means the alteration of its normal functions i.e. *Vikshepana* and *Dharana*. *Gati* of vitiation may be *Anuloma* direction as in *Athisara* or *Pratiloma* as in *Mala-*

*bandha*, *Udavarta*, etc. *Vega Dharana* and *Agni Vaigunya* in turns lead to *Apanavata vitiation*. Symptoms of *Apanavata vitiation* are its altered function of *Chala*, *Rooksha*, *Sheeta*, and *Khara Gunas*. *Apana Vayu Rodha* invariably affects *Prana Vayu* and *Marma sthana* like *Hrudaya*, *Shiras*, and *Basti*.

#### **Modern Review:**

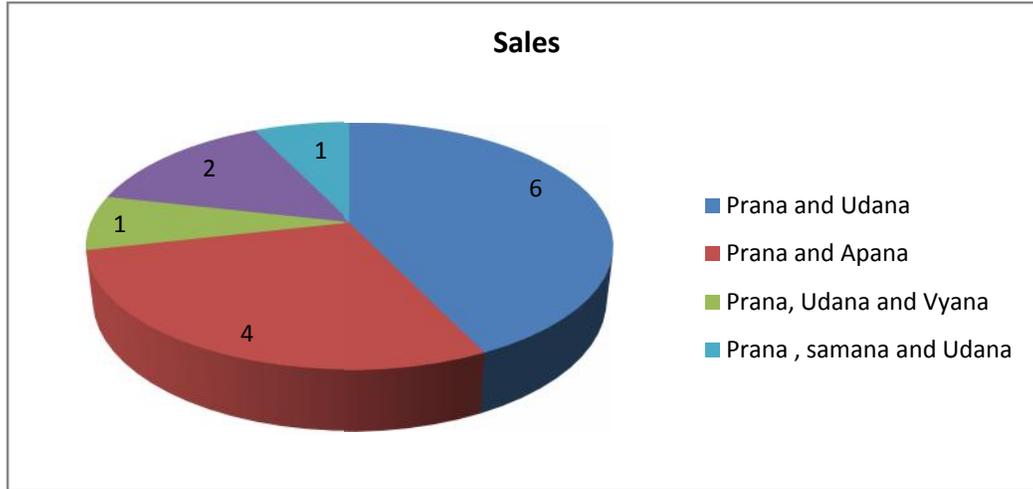
A small attempt has been made to understand *Apanavayu vega* in a modern perspective. Nerve supply to the gastrointestinal tract is in the form of sympathetic, parasympathetic, enteric nervous system and gastrointestinal reflexes. The enteric nervous system sometimes referred as the second brain because it relies on the some types of neurons and neurotransmitters that are found in the CNS. Enteric nervous system uses serotonin to communicate with the central nervous system. This 'Brain – gut axis helps explain why researches are interested in understanding how psychological and social stress might cause the digestive problems. Enteric nervous system is closely related with the Central nervous system. Another condition caused by the *Udavarta* is 'Andhya' which means blindness. This is quite impossible to believe that how eyes are related with the *Apana vayu*. Eye is basically a *Prana vayu sthana*. In an article named 'Gut microbes linked to eye diseases' – observations have been made by the researches regarding the possible connections between the Gut microbes and the eye diseases.

#### **OBSERVATIONS AND DISCUSSION**

1. '*Adharaneeya Vega*' is a reflex mechanism<sup>5</sup> and it is a nervous activity. And all the *Vega* is a Normal function of *Vata dosha*.

2. *Mootra, Purisha, Adhovata, and Shukra Vega* are attributed to *Apana vayu* and *Prana Vayu*. *Udgara, Kasa, chhardi, Kshavathu, Ashru* and *Jrumbha* are attributed to *Prana* and *Udana* both. *Shrama*

*shavasa* is attributed to *Prana, Udana* and *Vyana*. *Trut* and *Kshut* are attributed to *Samana* and *Prana* both. *Nidra* is related with *Prana, Udana* and *Samana*.



**Table 1:** Predominant *Guna* of *Adharaneeya vega* and their functions:

•	<i>Mootra,</i>	<i>Prana, Vyana and Apana.</i>	<ul style="list-style-type: none"> <li>• <i>Sara Kitta</i> division is by <i>Samana Vayu</i> but as far as its excretion is concerned, it is not involved in the process. <i>Prana</i> is a central regulator.</li> <li>• <i>Prana</i> is said to be the controller of <i>Indriya, Buddhia</i> and <i>Manas (Buddhi indriya mano Hrudaya dhamani dharana)</i> i.e. <i>Prana</i> is the central regulator of all the sensory and motor organs and also the <i>Manas</i> and <i>Buddhi</i>.</li> <li>• So, the <i>Prana</i> in combination of <i>Vyana</i> and <i>Apana</i> helps in the excretion of <i>Mootra</i>.</li> <li>• <i>Vyana</i> – Sensing receptor activities (As <i>Vyana</i> – prayah Sarvah Kriyah Tasmin Pratibaddhah).</li> <li>• The nervous activities helping in the mere excretion is the <i>Apana</i> part and bringing the sensation from central to empty the bladder is the <i>Prana</i> Part.</li> </ul>
•	<i>Purisha</i>	<i>Prana and Apana</i>	<ul style="list-style-type: none"> <li>• Stretch receptor activities, Sympathetic activities in the form of contraction of rectal walls, initial contraction of external sphincter is by <i>Vyana</i> and urge to defecate from brain is by <i>Prana</i> and relaxation of external sphincter and thereby the final defecation is by <i>Apana</i>.</li> </ul>
•	<i>Adho vata</i>	<i>Prana, Vyana and Apana</i>	<ul style="list-style-type: none"> <li>• Similar to the above process.</li> </ul>
•	<i>Shukra</i>	<i>Prana, Vyana and Apana.</i>	<ul style="list-style-type: none"> <li>• <i>Harsha</i> is a function of <i>Vyana Vayu</i>.</li> <li>• Once there is a sufficient <i>Harsha</i> / stimulation, it is followed by series of sympathetic activities – <i>Vyana Vayu</i>.</li> <li>• All the inputs from the brain/ even the desire to have the orgasm – is by <i>Prana</i>.</li> </ul>

			<ul style="list-style-type: none"> <li>• And parasympathetic activities in the form of relaxation and excretion are by <i>Apana vayu</i>.</li> </ul>
•	<i>Udagra</i>	<i>Prana, Udana</i>	<ul style="list-style-type: none"> <li>• The act of relaxation of lower esophageal sphincter involuntarily- by <i>Prana Vayu</i> in combination of <i>Udana</i>.</li> </ul>
•	<i>Kasa</i>	<i>Prana, Udana and Vyana</i>	<ul style="list-style-type: none"> <li>• Efferent impulses from medulla of brain thus producing the involuntary actions of coughing – <i>Prana and Udana</i>.</li> </ul>
•	<i>Shrama shvaasa</i>	<i>Prana, Vyana and Udana</i>	<ul style="list-style-type: none"> <li>• Brain activities and thus producing the further muscular action required for the respiration if by <i>Prana and Udana</i>.</li> </ul>
•	<i>Kshut</i>		<ul style="list-style-type: none"> <li>• Hypothalamic activities pertaining to the hunger is by <i>Parana Vayu</i>.</li> <li>• Eternal stimuli are taken by <i>Vyana</i> and the final release of hormones/ juices and motor activities inside the G.I.T. is by <i>Samana Vayu</i>.</li> </ul>
•	<i>Trushna</i>		<ul style="list-style-type: none"> <li>• Central processing of information – <i>Prana vayu</i> and Final correction of solute and fluid imbalance is by <i>Samana vayu</i>.</li> </ul>
•	<i>Nidra</i>		<ul style="list-style-type: none"> <li>• Sleep as a biological clock set up- <i>Prana vayu</i>.</li> <li>• There is no clear cut theorem explaining the sleep mechanism in modern literature.</li> <li>• There are so many theories which explain the possible mechanism, but these can't be taken as theorem.</li> <li>• <i>Vagbhata</i> says that <i>Akala shayana</i> affects <i>Samana vayu</i>, it indirectly suggests that <i>Samanavayu</i> also involved in the sleep mechanism.</li> <li>• As there is a central regulation it is quite obvious that <i>Prana vayu</i> is the prime regulator of sleep.</li> <li>• <i>Vagbhata</i> also says <i>Nidra Vega Dharana</i> causes <i>Udana</i> dysfunction. As <i>Udana</i> is involved in <i>Urja</i> and <i>Bala</i>, when there is fatigue state, the energy needs to conserve and hence forth sleep is demanded by the person.</li> <li>• In this is way the alteration in the sleep may affect <i>Udana</i> as it is involved in <i>Urja</i> and <i>Bala</i>.</li> </ul>
•	<i>Ashru</i>		<ul style="list-style-type: none"> <li>• Involvement of <i>Manas</i>/emotional changes leading to tears – <i>Prana Vayu</i>.</li> <li>• Neural activities at the site of lacrimal duct etc. – <i>Udana</i> activities.</li> <li>• <i>Vagbhata</i> says, <i>Ati Rudhita</i> affects <i>Udana Vayu</i> which highlights the role of <i>udana</i> in lacrimal excretion.</li> </ul>
•	<i>Kshavatu</i>		<ul style="list-style-type: none"> <li>• Brain stem, ventromedian part – <i>Prana vayu</i> activities and final activities of <i>Kshavathu</i> is <i>Udana vayu</i>.</li> <li>• <i>Vagbhata</i> mentions that – <i>Udana vayu</i> is affected by the <i>Vega Dharana</i> of <i>Kshavatu</i> draws the importance of <i>Udana</i> in <i>Kshavathu</i> reflex.</li> </ul>
•	<i>Jhrumba</i>		<ul style="list-style-type: none"> <li>• Though the exact mechanism is not known fully, the central mechanisms related with the yawning are <i>Prana</i>.</li> </ul>
•	<i>Chardi</i>		<ul style="list-style-type: none"> <li>• Same as <i>Udagara</i> – the central stimulation and taking the stimulus in - <i>Prana</i> followed by stimulation of <i>Udana</i> and <i>Chhardi</i> and <i>Udana</i> is also related with <i>Jhrumbha</i> as <i>Nidra</i> and <i>Jhrumbha</i> are closely related.</li> </ul>

3. All the Vegas are invariably related to *Prana Vayu*. And thereby, the *Vega rodha*

*laskhana* also involve *Prana Vayu* dysfunctions.

4. *Apana Vayu* is mostly parasympathetic in action.
5. *Apana Vayu* is related with *Mootra*, *Purisha*, *Adhovata*, and *Shukra Vega* along with *Prana vayu*<sup>6</sup>.
6. *Apana Vayu* is Predominant of *Rooksha Guna*; whereas *Prana Vayu* is predominant of *Ruksha*, *Chala* and *Laghu Guna*.
7. *Apana Vayu Rodha* invariably affects *Prana Vayu*<sup>7</sup> and *Marma sthana* like *Hrudaya*, *Shiras*, and *Basti*.
8. *Apana Vayu Vega* has a close connection with mental health.
9. Enteric nervous system is closely related with the Central nervous system.
10. Gut has a connection with Heart<sup>8</sup>
11. Possible connection of *Apana vayu* with eyes<sup>9</sup>.

## CONCLUSION

### Main conclusions derived from the study are:

Exploration of physiological importance of *Adharaneeya Vega* especially *Apanavayu vega* from the clinical findings and to evaluate them on *Ayurvedic* and modern basis will add new scope to the discipline of *Ayurveda*. Fraction of *Sareera vata*, which has a special tendency to move downwards and to control the functions of lower part of the body, is termed as *Apana vata*. It controls the emission of *Shukra*, *Arthava*, *Sakrit*, *Mootra*, *Adhovata* and *Garbha*. The functions of *Apanavayu vega* are more or less similar with the neuromuscular and secretary functions described in modern physiology. *Apanavayu vaigunya* has a straight relation with the mental aspects and the degree of vitiation has its influence on different mental status like stress, excess anger etc. *Apana vaigunya* has some relationship

with *agni* and it is inter related that means *Agni vaishamya* leads to *Apanavayu vaigunya* and vice versa. The consumption *Laghu*, *Snigdha*, *Vatanulomama* foods and normal regime like *Dinacharya*, *Ritucarya*, give the proper response to the natural *Vega* with *Vyayama* and pleasant mind will defiantly prevent the *Apanavayu Vega Vaigunya*.

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