

**VAMANA KARMA- UNDERSTANDING MODE OF ACTION****¹*Krishna Kant Pandey, ²Amit and ³Prof. A. K. Tripathi**

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ABSTRACT

Vamana is the first karma among five karma in the sequence of *Panchkarma*. It is a *Apatarpana Chikitsā* which is indicated in *Bahu Doṣāvasthā* (excessive vitiation of *Doṣa*) especially, in *Kapha* disorders. Vamana not only eliminates excessive Kapha but it removes *Āmāśaya* located excessive or *Apakva* (unripen) *Pitta* too. Vamana Karma acts by removal of *Utkliṣṭa* *Doṣa* brought into the *Koṣṭha*. *Ācārya Caraka* has described a beautiful mode of action of Vamana which occurs due to the *Uṣṇa*, *tīkṣṇa*, *Sukṣma*, *Vyavāyī*, *Vikāśī* properties of the Vamana Drugs. According to eustress theory, Vamana karma caused a state of hypo hydration which causes Eustress in the body which stimulates various controlling system of the body, thus normalizing the normal functions of the body. Other hypothesis suggests the removal of lipid soluble toxins due to hyperemia and

increased permeability of the stomach mucosa due to Vamana.

KEYWORDS: *Vamana*, Emesis, Mode of action, *Kārmuktā*.

INTRODUCTION

In the sequence of Panchkarma, Vamana is the first karma. As the five *Śodhana* karma removes the vitiated doṣas from their nearest external orifice, Vamana karma removes the vitiated Kapha or *Kapha Sthānagata Pitta* present in *Āmāśaya* from mouth.

तत्र दोषहरणं ऊर्ध्वभागं वमनसंज्ञकम्^[1]

अपक्व पित्त श्लेष्माणौ बलात् ऊर्ध्वं नयेत्तु यत् |

वमनं तद्धि विज्ञेयं मदनस्य फलं यथा ॥^[2]

Vamana karma is also essential before giving *Virecana*, as it prepares the body for *Virecana* by removing the excessive kapha. As in excessive Kapha condition, if *Virecana* is given, it causes movement of Kapha towards *Grahanī* and *Gaurava* (heaviness) and causes *Pravāhikā*. And even *Virecana* drugs causes vomiting if given in excessive *Kapha* condition.^[3]

According to a simile by *Ācārya Suśruta*, as cutting of the root of the tree causes destruction of its leaves and flowers. In a similar way, elimination of excessive *Kapha* by *Vamana* causes pacification of the diseased caused due to excessive *Kapha*.

Also periodic Vamana helps in avoidance of various diseases like Cough, Hoarse of voice, Excessive sleep, Foul smell in breath, GI disorders etc.

कासोपलेप स्वरभेदनिद्रा तन्द्रा आस्यदौर्गन्ध्यविषोपसर्गाः ।

कफप्रसेकः ग्रहणीप्रदोषा न न सन्ति जन्तोर्वमतः कदाचित् ॥^[3]

Generally, all the *Śodhana* procedures removes vitiated Doṣa, brought into the *Koṣṭha* from the *Śākhā*, by the *Pūrva Karma* (i.e. *Pācana*, *Snehana*, and *Svedana*),^[5] Still each *Karma* performs its action in a specific way which is described onwards.

MODE OF ACTION

Ayurvedic View

1. General Mode of Action

First, *Dīpana-Pācana* as *Pūrva Karma* causes *Agni Vruddhi*, *Āma Pācana* and *Doṣa-Dūṣya Sammūrchanā Bhedana*.

Sneha given after *Dīpana-Pācana* causes *Kledana* and *Dravatva Vruddhi* in the *Doṣa* as well as *Snehana* of the *Srotasa*.

Svedana causes *Viṣyandana* (liquefaction) of the *Doṣa*, dilatation of the *Srotasa* (*Sroto Mukha Viśodhana*) and helps in moving the *Doṣa* towards *Koṣṭha*.

Vamana given afterwards causes expulsion of the *Doṣa* from the *Ūrdhvamārga* (mouth) due to the *Prabhāva* of the *Vāmaka* drugs.

2. Specific Mode of action of Vamana Karma

Before administration of Vāmaka drugs, there is indication of *Ākanthapāna* administration of *Ksheer/ Yūṣa/ Ikṣurasa/ Madya* etc.

After that Vāmaka Drugs are given to induce vomiting.

Madhu and Saindhava Lavana are added in each Vamana yoga which causes *Vilayana* and *Chedana* of the Doṣa.^[6]

Vamana drugs possesses the following properties:- *Uṣṇa, Tīkṣṇa, Sukṣma, Vyavāyī, Vikāṣī*. Also they are Agni and Vāyu Mahābhūta Pradhāna.

Due to Vyavāyī Guṇa: Spreads in the whole body without undergoing digestion.^[7]

Sukṣma Guṇa: helps in entering the macro as well as micro channels of the body.^[8]

Vikāṣī Guṇa: Helps in disintegration of Dhātu Bandhana.^[9]

Uṣṇa Guṇa: causes Viṣyandana (liquefaction of the dosa).^[10]

Tīkṣṇa Guṇa: causes Vichhedana (disintegration) of the Doṣa from Dhātu or Srotasa.^[9]

Disintegrated Doṣa moves towards *Āmāśaya* due to their *Aṇu Pravana Bhāva* (Nature of travelling into micro channels), without sticking/stopping anywhere inside the pre-oleated channels like Honey, which doesn't stick inside an oleated pan.^[9]

After reaching the *Āmāśaya*, *Doṣa* due to the *Ūrdhvīmukha* nature (tendency to move towards above) of *Agni* and *Vāyu Mahābhūta and Prabhāva* of the *Vāmaka* Drugs, are expelled out from the mouth by the action of *Udāna Vāyu*.^[9]

As *Kapha-Vardhaka* diet is given before Vamana karma, also Vamana Karma is performed in *Pūrvāhna Kala* (early morning) which is *Kapha Vruddhi Kala*. Both of these factors helps in easy expulsion of *Kapha* from the body.

Ācārya Caraka has mentioned few signs and symptoms^[11] which occurs in a sequential way within 1 *muhūrta* (48 minutes) after administration of Vāmaka medicine, which are as follows:-

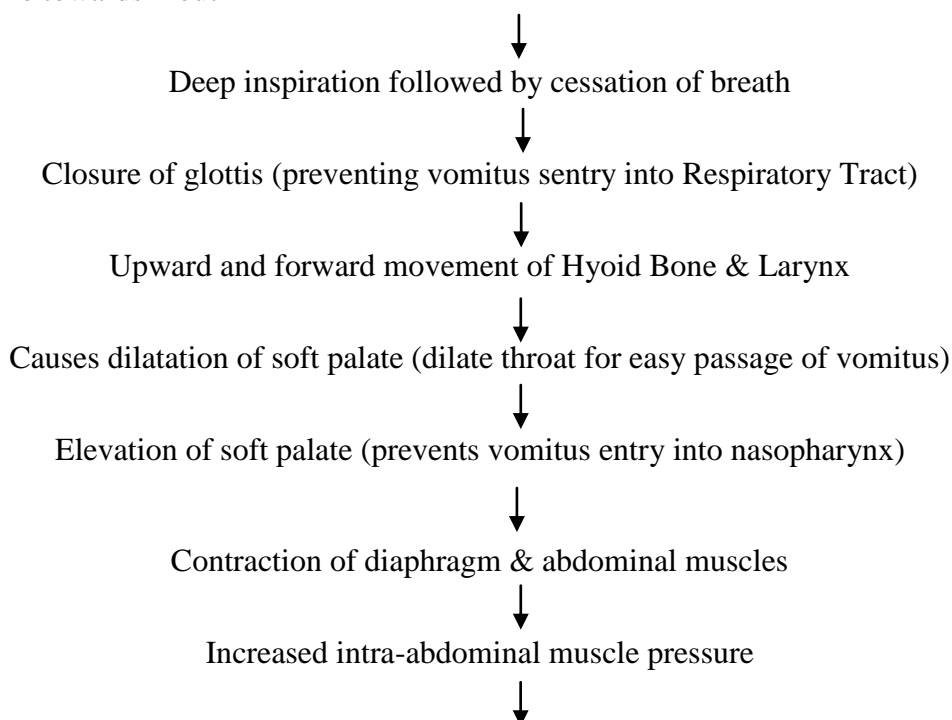
1. Sveda Prādurbhāva (Sweat appearance)– which indicates Doṣa Vilayana (liquefaction of the Doṣa)
2. Romahaṛṣa (Horripilation):- which indicates that Doṣa have initiated movement towards Āmāśaya.
3. Ādhmāna (Distention/Discomfort of the abdomen):- which suggests Doṣa have reached the Koṣṭha/Āmāśaya.
4. Hrullāsa & Āsya Sravaṇa (Nausea):- which indicates Doṣa are Ūrdhvīmukha (moving towards mouth).

Modern View

Vomiting is the oral expulsion of the stomach as well as upper GI contents due to the contraction of gut and abdominal muscles with the help of Autonomic Nervous system. Vomiting occurs when the GI tracts excessively irritated, over distended or even over excited.^[12]

Cascade of events during Vomiting

1. **Nausea:-** is preceded before vomiting. It is characterized by increased salivation due to parasympathetic activity.
2. **Retching:-** occurs before the vomiting. Means “try to vomit”. It occurs due to involuntary GI tract movement.
3. **Vomiting:-** Vomiting initiates due to the beginning of reverse peristalsis from small intestine towards mouth



Compression of relaxed stomach between diaphragm and abdominal muscles

↓
Increased gastric pressure

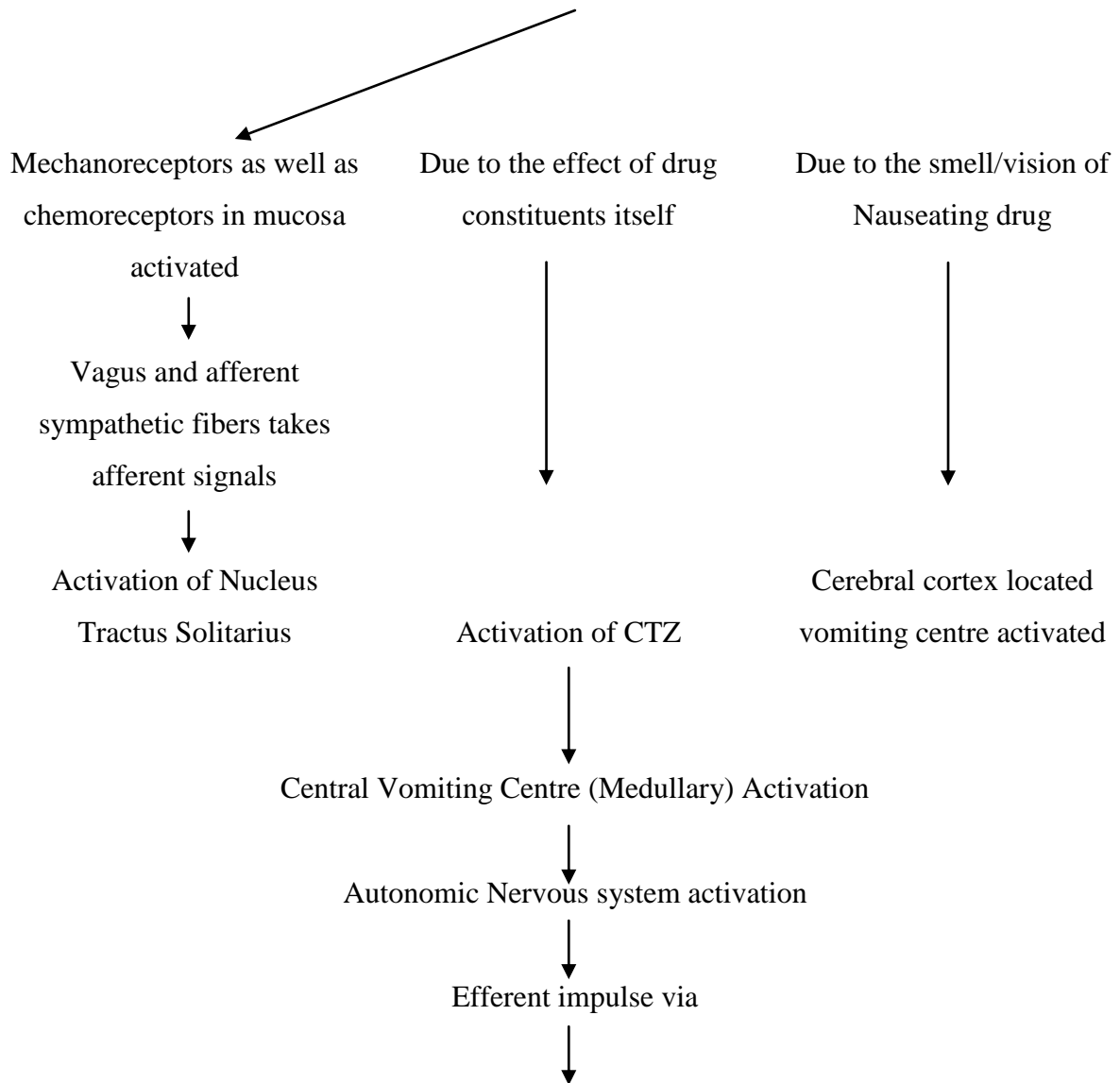
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Simultaneous relaxation of LES, oesophagus and UES

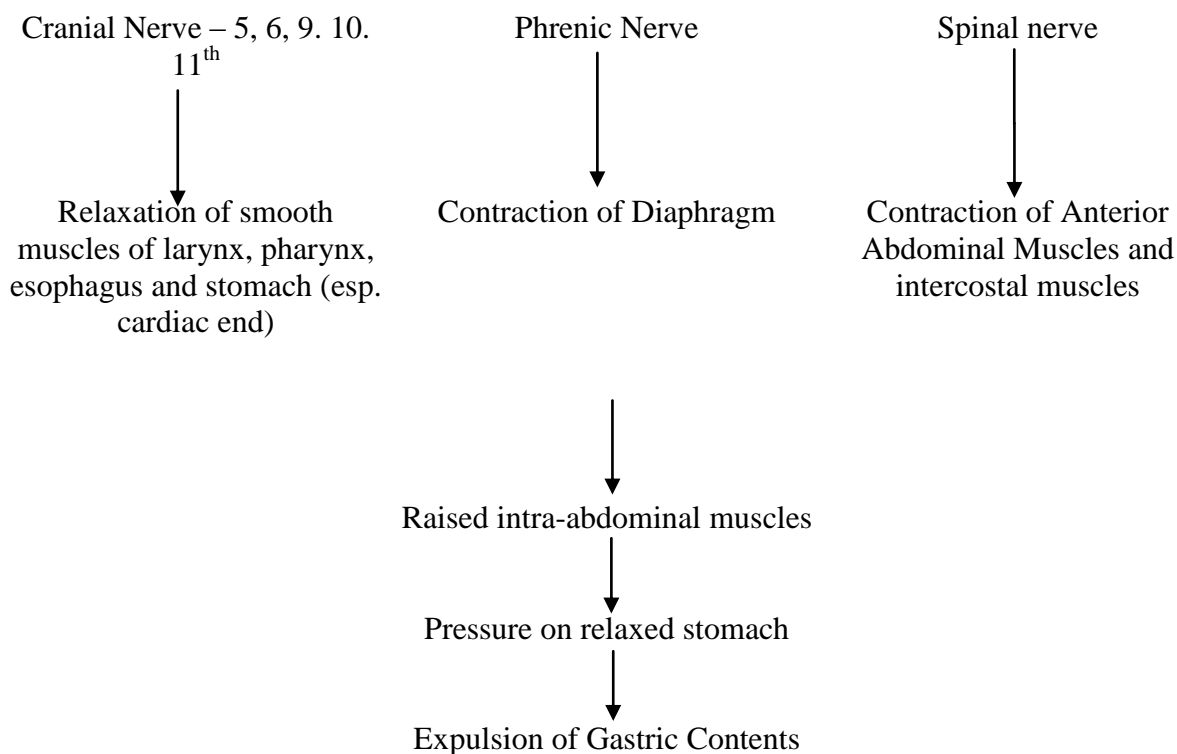
↓
Forceful expulsion of Vomitus

Pathway

Over distention of stomach due to *Ākanthapāna*

↓
Irritation of the mucous membrane of stomach by *Vāmaka* drugs





Chemical Changes in the gut

During the act of Vamana, a series of chemical changes take place in the stomach. Firstly mucin, a combination of glycoprotein and phospholipid are secreted by surface epithelium of gastro duodenal cells. It helps to produce a physio-chemical barrier. Thus after intake of Vamana drug, mucin is secreted in large amount to avoid any mechanical injury of the stomach wall due to continuous vomiting action.^[13]

From the damaged tissues, chemicals like histamine, bradykinin, prostaglandins, proteolytic enzymes, proteolytic enzymes and leukotrienes.^[12]

Due to local irritation by Vāmaka Drug, increased blood flow occurs in that area.^[12]

Leakage of large quantity of pure plasma out of the capillaries into the damaged area.^[12]

Increased secretion of cortisol occurs to counter the factors which promotes inflammation. This also promotes additional rate of healing in whole of the body. It also helps the body in resisting various type of physical stress.^[14]

During vomiting, gastric micro vascular system comes to play an important role in draining out various metabolic bi-products and also supplies adequate micronutrients and oxygen to the gastric sub-mucosa.^[13]

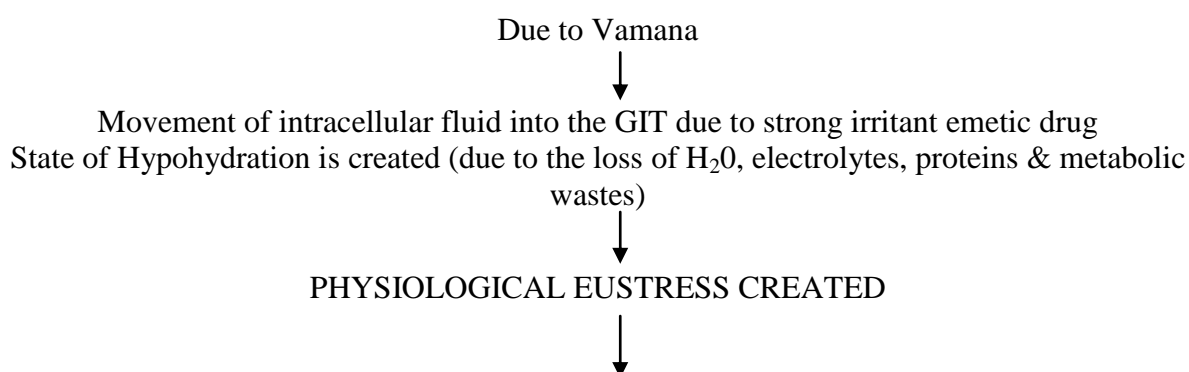
Secondly acetylcholine, gastrin and histamine are said to be the secretion during Vamana. Acetyl choline is released from nerve ending as a neurotransmitter.^[13]

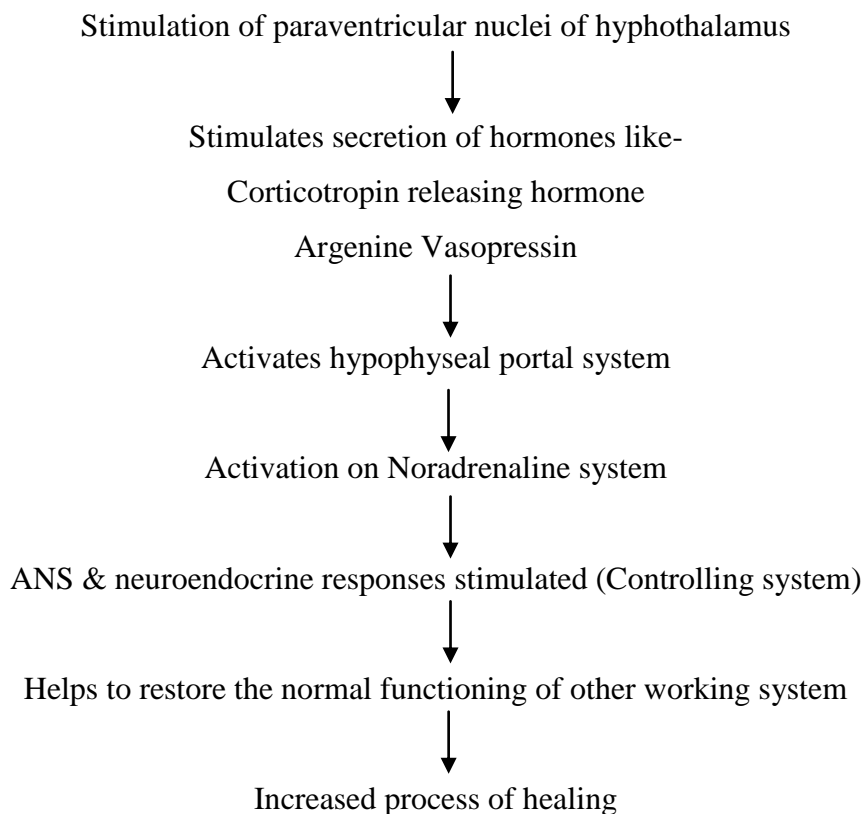
Eustress Theory

According to the physiology, the normal cell health and functioning is maintained by a state of homeostasis in the internal milieu of the body, ECF of the body.^[15] The state of homeostasis is measured in terms of pH, osmolarity, nutrients concentration, oxygen concentration, waste removal from ECF. This homeostasis is maintained by the co-ordinate functioning of the physiological systems of the body, broadly grouped under two-Working systems and the Controlling systems.^[16] Respiratory, digestive, circulatory and excretory systems are the working systems whereas the Nervous and the endocrine system are the controlling system of the body.

Due to the *Vamana Karma*, there occurs a controlled disturbance in the physiological systems, which affects the entire body. Relating this understanding to the modern physiology, it seems that this effect may be achieved through the ECF since it is the only material which is constantly flowing and is in direct contact with all the systems of the body. ECF is the medium which can be manipulated to bring about changes in these physiological systems. *Vamana Karma* affects the whole body by the same principle.^[17]

This concept can be elaborated through the concepts of stress physiology. Stress is a physiological reaction to an uncomfortable or unfamiliar physical or psychological stimulus. This stress is of two kinds – Eustress and Distress. Distress is stress with negative outcome while Eustress is stress with positive or beneficial outcome. *Vamana Karma* develops a stage of Eustress which stimulates the controlling systems of the body, thereby, influencing the working systems of the body to achieve a normal homeostasis by alerting body's corrective mechanisms and promoting healing processes.^[17]





Thus, these hypo hydration induced stimulations can even heal an ulcer at the tip of finger or can treat psychiatric disorders too.

DISCUSSION

Ācārya Caraka has described the mode of action in a very scientific manner.

Each and every step, whether of *Pūrva Karma* or *Pradhāna Karma*, is quite essential for the whole process, although difficult to justify on modern physiological grounds.

60% of body is fluid. 2/3 of which is ICF while 1/3 is ECF. Body's metabolic waste as well as nutrition travels via ECF only. Various toxins, free radicals or cellular metabolic waste are either lipid soluble or water soluble. Therefore said,

स्नेहसारो अयं पुरुषः प्राणाश्च स्नेह भूयिष्ठा स्नेह साध्याश्च भवन्ति ^[18]

Internal Sneha (Lipids) is given as *Pūrva karma* enters inside the cell membrane. As cell is made of phospholipids only, given Sneha replaces the impaired cellular content, dissolve metabolic waste in itself and bring it to the interstitial space.

Snehana also helps in lubrication of macro and micro channels of the body to facilitate easy vomiting. It prepares the body to bear the stress, which body is soon going to suffer, during Vamana Karma.

Svedana, which is given for 2-3 days before Vamana, increases rate of blood flow within various channels, cause vasodilatation and increased permeability too. This helps in more waste product accumulation in the interstitial spaces, and in the capillaries near the GI tract. It can be explained as:- As body has 3 compartments- Outer is the skin, Inner is GIT and in the middle are many hollow pores for transportation. As body fluids are dynamic in nature (in motion) and when a fluid is heated from one end it moves towards the cooler end. Similarly when Svedana is given externally, movement of the fluid occurs towards the GIT, the hollow end.

Now in GIT, secretary mucosa which is already *Klinna* by *Snehana*, when receives an irritant stimulus by the Vamana drug, starts secretions, which also consists of lipid dissolved metabolic waste and toxins.

Other than mucous secretion, many other peptides, neurotransmitter inflammatory mediators (histamines, leukotriene etc.) as well as suppressors (like cortisol) are also secreted, depending upon the receptor activated by the site of action of *Vāmaka* drug.

Pūrvāhna Kala is said to be the best time for *Vamana karma* by Ācārya. In *Pūrvāhna Kāla*, *Kapha Vruddhi* occurs naturally, which helps in easy expulsion of *Kapha Doṣa*. Also, at the *Pūrvāhna Kala*, plasma cortisol levels are on higher end and further Vamana increases the Cortisol level to such an extent that it promotes the body to fight against various pathological stresses.

Ākantha Pāna of *Kṣeer* etc. also have a specific role in *Vamana Karma* and helps in easy facilitation of *Vamana Karma*. It stimulates stretch receptors, induces cholechytokin, insulin and glucagon secretion. All these factors suppresses the feeding centre and stimulates the satiety centre, which in turn signals to stop drinking further milk (or any other *Drava*). It causes distention of the stomach which, thereby, stimulates vagus nerve endings to carry afferent impulse towards Vomiting Centre and further stimulation of Autonomic Nervous System (Parasympathetic as well as sympathetic).

As During Vamana, antigravity muscles have to work more. On sitting in *Janu Sama Āsana*, neck and spine muscle comes closer to the earth and becomes parallel to the muscle of legs. This decreases gravitational load on muscles as well as maintains the equilibrium, which prevent early fatigue in muscles.

Support on forehead and laterally as indicated by *Ācārya Caraka*, relaxes outstretched muscles. While upward rubbing of the back and compression over the umbilical region facilitates upward movement of the vomitus, increases intra-abdominal pressure and promotes passive muscle contraction which also helps in a less stressful emesis.

Various signs and symptoms, explained by *Ācārya Caraka*, which are seen during the Vamana Karma in a sequential way occurs due to the autonomic nervous system stimulation. *Sveda Prādurbhāva* and *Romaharṣa* occurs due to sympathetic nervous system stimulation. While *Ādhmāna* occurs due to increased reverse peristalsis in the duodenal muscles due to parasympathetic nervous system activation. Decreased tone of gastric muscles while increased tone duodenal muscles and the taste of the Vāmaka drug causes nausea as well as stimulates parasympathetic nervous system, which induces hyper salivation (*Āsya Srāva*) to dilute the irritant drug in mouth or to prevent the teeth enamel from acid reflux during vomiting.

Acc. to Eustress hypothesis, Vamana Karma induced hypo hydration triggers controlling system of the body which in turn stimulates Thermoregulatory, Endocrinal, Plasma, GI, Cardiovascular system along with stimulation of metabolism. This helps re-establishment of lost health of cell. Example:- Hyperosmotic internal environment created by hypo hydration prevents evaporative heat loss by reducing the activity of warmth sensitive neurons of hypothalamus which justifies thermoregulatory effect of hypo hydration. Similarly, Vamana Karma induced eustress also causes depression of respiratory centre which decreases hyperventilation. This hypo hydration also increases ADH secretion which thereby increases cardiac output (Cardiovascular Response).

CONCLUSION

Each Science have its own basic concepts on which its various theories justifies themselves. These concepts sometimes correlates with other science's concepts and sometimes not. Ayurveda is a life science with its basic concepts quite different from the modern medical science. Although, we can only suggest hypothesis for the mode of action of Vamana karma

to prove its efficacy on modern medical science ground. Still, the outcomes which are obtained after Vamana justifies its mode of action as described by ayurvedic stalwarts.

In short, *Vamana* causes the removal of body toxins, free radical or vitiated *Kapha* accumulated in the body, promotes internal mechanism of the body to escalate healing processes, balances the *Tridoṣa* and thus helps in attaining *Svasthāvasthā* (healthy state).

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