

MODE OF ACTION OF NIRUH BASTI (MODERN VIEW)**Ajinkya Kondekar*¹, V. J. Patade²**

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Abstract:

Ayurveda is an ancient science of medicine. It originates from *Atharv veda* and since vedic period to till date its principles, medicines, and treatment modalities like *panchakarma* were proved very useful for treatment of various diseases. *Niruh basti* is one of the *panchakarma* modality which has very surprising effect on various systems present in our body. In this article we are describing mode of action of *niruh basti* according to modern science.

Key words: *Niruh basti*, mode of action.

Introduction:

Panchakarma is unique modality of ayurvedic treatment consisting of *vaman*, *virechan*, *basti*, *nasya*, *raktamokshana*. Out of above five *karmas*, *basti* is considered as most important *chikitsa*. It completely eliminates the vitiated *vata dosha* which is responsible for all the

diseases. Due to its multifocal effects *Basti* is stated as "*Ardha chikitsa*"¹.

Niruh Basti:

Basti is of two types according to the medium used for *basti dravyas*².

Niruh basti: *basti dravya* is in form of decoction of various *dravya*.

Anuvasan Basti: *Basti dravya* is in form of oil or *ghrut*.

Here we are going to elaborate the mode of action of *niruh basti* according to modern science. First of all we will see constituent of *niruh basti*.

Constituent of *niruh basti*³

- 1) *Makshikam* (honey)
- 2) *Saindhav* (Rock Salt)
- 3) *Sneha* (oil, ghee, Vasa)
- 4) *Kalka* (Paste of Herbs)
- 5) *Kwatha* (Decoction of Herbs)

1) *Makshikam* (Honey):

Honey is *madhur* and *kashay* in taste, *chedan* and *ruksha* in *guna* and *ushna* in *virya*. It is *kaphahara* and *vran shodhana* in nature⁴. The most important property of honey in context of *Basti* is “*yogavahitvam*”⁵ and “*sukshmamarga anusaritam*”⁶. *Yogavahi* means catalyst in action. *Sukshma anusarita* is the potency to penetrate the minute capillaries of the body (by increasing osmotic permeability). Honey is rich source of sugars like fructose, glucose, sucrose, maltose, lactose and other disaccharides and trisaccharides. It also contains proteins, fats, vitamins, minerals, enzymes and amino acids. Because of it honey becomes natural product with high nutritional and medicinal value.

2) *Saindhava* (Rock Salt)

Saindhav is a type of *lavan* (salt). It is *Madhur* in *vipak*, *tridosh hara*, *laghu* and *sukhma* in *guna*, *unushna* in *virya*⁷. *Saindhav* contains 21 essential and 30 accessory minerals, 98% sodium chloride only. A trace of potassium is also seen. It is useful in regulating acid-alkaline balance, maintaining osmosis, activation of ATP phase. It removes excess acidity; generate hydroelectric energies in cell for nerve cell communication.

Note: *Makshikam* and *Saindhav* in *Basti* represents source of glucose and electrolyte and thus prevent dehydration. Salt has property of stimulating ionic action potential which may be the causative factor for the mode of action of *basti*⁸.

3) *Sneha*:

Pakwashaya is *ashray sthan* of *vata*. The medicine administrated at *pakwashaya* should contain *sneha dravya* to compassionate effect of *vata*. The *sneha* added in *basti* will lubricate the colon, Soften the *malas* and help to eliminate it without strain.

Among the four *snehas*, *taila* is used for *vata kapha* condition and *ghruta* is used in *vata pitta* condition⁹.

4) *Kalka*:

Kalka is the drug which gives potency of whole combination. It is observed that sign of dehydration occurs if quantity of *kalk* is increased. *Kalka* helps in disintegrate the *malas* by increasing osmotic permeability of the solution.

Different combinations are mentioned in *sushrut samhita* for different *basti yogas*. “*Satahva*” is the most commonly used drug as *kalka* in *basti yogas*.

*Putoyavanyadi kalk*⁹ is mentioned in *Ashtang hrudaya* is used as common *kalk dravyas* whenever *kalk dravya* is not mentioned specifically. *Putoyavanyadi kalk* consist of *yavani*, *madanphal*, *bilwa*, *kushta*, *vacha*, *satahva*, *musta* and *pippali*.

5) Kwatha:

Kwatha is decoction of *basti dravyas*. The mode of action of *basti* like *vatahara* or *pittahara* or *kaphahara* depends on the *gunas* of *kwath dravya*. It also helps in maintaining volume and helps in spreading and cleaning. Its *vatahara dravyas* provides *anuloman* and *nirharan* of *doshas*. The decoction is made as per the *Basti yogas* mentioned in the classical text. *Madanphala* is common ingredient of most of the *Niruh Basti*.

Mode of action of *basti* according to Modern science:

Osmosis: - Osmosis is when a substance crosses a semipermeable membrane in order to balance the concentrations of another substance. In biology, this is usually when a solvent such as water flows into or out of a cell depending on the concentration of a solute such as salt. Osmosis happens spontaneously and

without any energy on the part of the cell¹⁰. *saindhav* in *niruh basti* make it hyper osmotic which causes movement of endotoxines from cells of colon to lumen and facilitates elimination of endotoxines thus it helps in detoxification process.

Pinocytosis: - *Basti* may act by pinocytosis mechanism. pinocytosis is a mechanism for transport of molecule across membrane. Pinocytosis is the method by which a cell absorbs small particles outside the cell and brings them inside. The word pinocytosis comes from the Greek for “cell drinking”. During this process, the cell surrounds particles and then “pinches off” part of its membrane to enclose the particles within vesicles, which are small spheres of the membrane. This process is usually used for taking in extracellular fluid (ECF)¹¹.

Rectal mucosal absorption: - The rectal mucosa has rich blood supply. *Basti dravya* contains *saindhav*, *honey*, *sneha*, *kwath*, *kalka* forms emulsion if churning it in specific manner as described in the text. Because of this specific churning long chain fatty acid may break down to small chain fatty acid which can easily get absorbed in rectal mucosa and through inferior rectal vein it directly

drain into systemic circulation¹². In research study done at Jamnagar it is reported that *thriphaladi basti* containing biomarker- garlic acid found in the systemic circulation. This study proves the *basti dravya* are getting absorbed through rectum in systemic circulation and it bypasses the hepatic metabolism¹³.

Cleansing action: - In view of some researcher *niruh basti acts* by its cleansing action. According to them as time passes, waste begins to stuck on the wall of colon and blocks the intestinal glands openings as a result intestines get distended as well as process of absorption nutrients and elimination waste from lumen get hampered. *Niruha basti* facilitate the cleansing of the lumen of the intestine and helps in maintaining the normal intestinal flora¹⁴.

Enteric Nervous System (ENS):-The gut has its own mind 'Enteric Nervous System' just like large brain. This system sends and receives the impulses, records experiences and responds to emotions. This ENS contains 100 millions of neuron which are more than that of spinal cord. These are embedded in the wall of gut. A big part of our emotions are probably influenced by these nerves

in gut. Basti may act all over the body by this system¹⁵.

Serotonin:- 95% of serotonin found in the bowel. Serotonin (5 hydroxy tryptamine/5HT) is a neuro transmitter that has tremendous effect over brain for many functions like sleep, appetite, memory, mood behaviours (including sexual and hallucinogenic), pain¹⁶. Basti may act on serotonin level and helps to pacify the disease related neurological, psychological etc.

Absorption of vitamins:-Absorption of vitamins and minerals through colon is an established fact. Makshikam (honey) contains Thiamin, Riboflavin, Niacin, Pantothenic acid, Pyridoxine, Ascorbic acid (vit-c) in good amount. In a study of basti therapy it is revealed that the pyruvic acid gets decreased in the blood which indicates the increase in vitamin B1¹⁷.

Immune modulation effect of basti:-In another study *mustadi yapan basti* is seen to be reduce the TB specific IgG and IgM in a significant amount which clearly denotes the immune modulation effect of basti therapy¹⁸.

Discussion:

According to above various hypotheses we here try to describe actually how the action of *niruh basti* take place after it administrates through anus. And how the constituents and there proportion and method of formation according to the *samhitha* are very important for getting desirable effect. Honey is rich source of sugar. It also contains proteins, fats, vitamins, minerals, enzymes and amino acids. Because of it honey becomes natural product with high nutritional and medicinal value. *Saindhav* is useful in regulating acid-alkaline balance, maintaining osmosis, activation of ATP phase. It removes excess acidity; generate hydroelectric energies in cell for nerve cell communication. *Makshikam* and *Saindhav* in Basti represents source of glucose and electrolyte and thus prevent dehydration. Salt has property of stimulating ionic action potential which may be the causative factor for the mode of action of basti. The *sneha* added in basti will lubricate the colon, Soften the *malas* and help to eliminate it without strain. Among the four *snehas* *taila* is used for *vata kapha* condition and *ghruta* is used in *vata pitta* condition. *Kalka* helps in disintegrate the *malas* by increasing osmotic permeability of the solution. The

mode of action of basti like *vatahara* or *pittahara* or *kaphahara* depends on the *gunas* of *kwath dravya*. It also helps in maintaining volume and helps in spreading and cleaning.

Conclusion:

According to above discussion *niruh basti* is absorbed by gut and acted upon various systems in our body by the phenomenon of osmosis, pinocytosis, Absorption through rectal mucosa and enter into systemic circulation and bypass portal circulation and thus gives immediate effects. *Niruh basti* also stimulates the enteric nervous system and regulate the serotonin level which is produced by gut and responsible for various neurological and psychological activities. Some basti like *mustadi yapan* shows immunomodulation effect. As the conclusion of all the above points Basti chikitsa is proved as Ardha chikitsa as it has multifocal effect on various systems in our body.

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