A Conceptual Study on Vasti Effect

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ABSTRACT: Pancakarma therapy is designed to eradicate the vitiated Dosas and maintain a state of normalcy and equilibrium, which is the fundamental basis of health. Any one of Pancakarma measures can be utilized singly too to prevent or cure a disease. Vasti Karma is an unique and broad spectrum therapeutic and preventive approach. Lot of emphasis as been given in our classics to Vasti Karma. In the present article, we have discussed certain important features of vasti karma. Authors also tried to explore the possible mechanism of action of this important pancakarma measure.

INTRODUCTION:

Since last few decades more and more attention as been focused on Pancakarma therapy for its revival and to examine its efficacy in various disorders. The classical pancakarma therapy can be divided in to:

1. Poorva Karma:- Consist of preparatory measures like Langhana, Pacana, Snehana (Oleation) an Swedana (Fomentation)

2. Consist of the main purification measures which are five in numbers, as follows:
   A. Vamana (emesis)
   B. Virecana (purgation)
   C. Anuvasana Vasti (oleus enema)
   D. Asthapana vasti (decoctive enema)
   E. Nasya (sirovirecana)

3. Pascata Karma:- Consists of special post therapy dietetic regime, known as samsarjana karma.

Above measures in the form of Pancakarma therapy have been successfully utilized in preservation, maintenance and conservation of health and promotion of longevity. Pancakarma therapy is designed to eradicate the vitiated Dosas and to maintain a state of normalcy and equilibrium, which is the fundamental basis of health. It is not necessarily essential to apply all the five measures in therapeutics. Any one of these measures can be utilized too to prevent or cure a disease. In the present article we well now concentrate on Vasti-karma and explore its various dimensions.

VASTI-KARMA AND ITS APPLICATIONS

Vastikarma is considered as the most important procedure in five fold Pancakarma therapy. The word Vasti, stands for a special instrument used for enemata therapy. Made of urinary bladder (Vasti) of animals
and karma stands for chikitsa or therapeutic action.

Thus Vasti Karma is a specific therapeutic procedure, in which medicines are administered into body through gudamarga (per rectum). Some times medicines are also administered by other routes, like Urethra or vagina, then this procedure is termed as Uttara vasti.

**TYPES OF VASTI:**

There are various types of Vastis, as described in ayurvedic classics. These are based on anatomical pharmacological and physiological points of consideration, their numbers and nomenclatures. Basically Vasti can be classified into three types: (C.sid-10/8, A.H.S.-19/2)

1. Anuvasana Vasti (oleus Vasti)
2. Niruha Vasti (non-oleus Vasti)
3. Uttara Vasti (urethral/vaginal Vasti)

The same approach was also present in other samhitas. However Susruta has classified vasti in two types, under general classification. They are:

A. Niruha Vasti or Asthapana Vasti.
B. Snailhika Vasti or Anuvasana Vasti

Bhavamisra and Sarangadhara have supported the view of Susruta in this context. It can be seen from various samhitas that different types of vastis have been described in various contexts.

**INDICATIONS OF VASTI:**

Vastikarma can be implicated in number of ailments in general. There is long list of indications: (CSid-2/14-16, A.H.S.- A.H.S.- 19/2-3,7-8,S.Ci,- 35/5,22). Specific once are:

**ASTHAPANA VASTI:**- (Asthapya and anasthapya)

The indications of decoction of Asthapana Vasti are neurological diseases, diseases of GIT, gout intermittent types of fever, unconsciousness, thirst, dysureia, calculi, menorrhagia, loss of appetite, pain in abdomen, hyperacidity and heart diseases, Asthapana vasti is contraindicated in patients who are excessively fat or debilitated, hiccough, cough, dyspnoea, piles, inflammatory condition of anus, skin disorder vomiting diarrhea, gastroenteritis, pregnancy ascitis and diabetes, etc, this vasti is also contraindicated in persons who have just taken their food. Broadly speaking main indications of Asthanpana vasti can be grouped into four main categories.

1. In Vata Roga and Vata Pradhaana rogas.
2. Diseases fit for sodhana, i.e. where sodhana of morbid Dosa and Dusyas are needed.
3. Vata Asraya rogas.
4. Diseases of gastrointestinal tract particularly of large intestine

**ANUVASANA VASTI** (ANUVASYA AND ANANUVASYA)

This too as indications similar to Asthapana Vasti. In addition, it is specifically indicated in pure vatika conditions or patients having excessive appetite (Tiksnagni) or in excessive dryness of body. This vasti should always be given after food, because if it is given on empty stomach, then due to empty gastrointestinal tract, it can reach up to upper GIT and obstruct the channels and produces nausea, vomiting etc.

The Anuvasana Vasti is contraindicated in similar conditions as indicated for Asthapana Vasti, Additional
The contraindication are Navajwara, Anaemia, jaundice, polyurea, Poisoning and filariasis etc. The administration of asthapana vasti is regarded as most important, in view of its cutting and eradicating the morbid dosas at their base, like cutting a plant at the base, i.e. sodhana effect. The administration of Anuvasana vasti on the other hand increases the flow of snigdha dravyas in the body like watering of a plant at its root, i.e. Bramhana effect. (C. Sid 2/16.19, A.H.S – 19/6)

**THERAPEUTIC EFFECT OF VASTI:**

Sometimes Vastikarma is wrongly considered as enema (retention) therapy. Actually, it is fundamentally different than simple enema. Though in some situation enema definitely as therpeutic effect, Inspite of procudural similitude to enema therapy, vasti therapy as number of actions, because of its unique formulations, further aided by medicines.

Depending upon the use of different drugs, Vasti causes samsodhana or samana effects. It performs the sodhana of Vata, Pitta, Kapha and Vit (faeces) and hence it is tridosahara (C.Sid=11/15 -18). This therapy is very useful for the protection of health as a whole, It helps in rejuvenation and it provides happiness, long life, strength intelligence, clear voice and colour to healthy person. It is good for old as well as for the young. There is no obvious hazards in this therapy. It cures all kinds of diseases, due to its varied pharmacodynamics and various kinds of drugs used in its preparation. Further, if the person is obese, is weight can be restored by this approach (S. Ci-35/3). Vastikarma cures all the diseases relating to sakha, kosta, Marmasthi and samdhi etc (A.H.S – 19/84- 86, A san sid -5, Bhela samhita Si 6/2).

Though vasti therapy has its scope in all kinds of ailments implicating different types of Dosas, Dusyas and Adhisthanas, Vasti is supposed to be the specific treatment for Vatika disorders, the relative importance of vata is already known and it as predominant influence on the three principal routes of diseases, niz-sakha, kosta and marma, moreover vas is responsible for the formation, communication and spread of biological humours (Sweda, mala etc.) Vasti being the main therapy for the same is on maximum importance, this is why, vasti therapy is said to be half of whole treatment and sometimes a complete treatment (C. Si-1/40-41).

**MECHANISM OF ACTION OF VASTI:**

Vasti therapy is one of the most important therapeutic procedures n Ayurveda, Its effects are not limited only up to rectum and samsodhana of malas (faeces), but id produces widespread systemic effects. It is specifically indicated in vatika disorders, but wit te addition of various types of medicines, it influences all te dosas, The next important question here is how does vasti act? Different views have been expressed by scholars, including some important researches carried n the department of kayachikitsa, institute of medical sciences, S.S. Hospital at Banaras Hindu University Varanasi. Vasti produces wide vata. Vata as a very important role in physiological action and production of diseases, caraka is of similar views. He states the pakwasaya is the main seat of vayu and vasti strikes the very root cause of vata and further normalizes its function.

Susruta has stated that the actions of vasti is mainly due to veerya (Specific action or property). He further elaborates tat te drugs used in Vasti-Kara will however spread in te body from pakwasaya due to their veerya
through appropriate channels I the same way, as water sprinkled at t root of tree, circulates all over te tree b its own specific property (Veerya) (S.ci. 35/23-25). So vasti karma eliminates the morbid dosas and dusyas from the entire body (by Srotosudhi) whether lodged in an part. So its effects are also tridosahara.

In an important study, Sastry, M.K. and Singh, R.H. (1993) postulated four dimensional views for pharmacological action and therapeutic effects of vasti, as follows:

A. Action of Vasti, due to its unique procedure (Procedural effect)
B. Action of Vasti due to drug used n process (Drug effect)
C. Action of vasti by srotsudhi and sodhana of body (Sodhana effect)
D. Action of vasti by regulating the enteric nervous system or GUTBRAIN (Regulating effect on gut brain).

Before going into detail and exploring new dimensions about mode of action of vasti, it will be beneficial to review the following:

1. Applied anatomy and physiology of large gut in relevance to vasti therapy.
2. Neurophysiology of large gut.
3. Microflora of large gut and its function.

The overall functions of the large intestine are the completion of absorption, the manufacture of certain vitamins, the formation of faeces and e expulsion of faeces form the body. Te structure of the colon varies more among mammals than does tat of any GI organ. In man and man primates, the outer longitudinal muscle layer is not condensed into three thick bands, the taeniae, This arrangement characterizes most of the human colon except for the rectum and part of sigmoid colon were the taeniae broaden and fuse to produce a longitudinal muscle coat of uniform thickness around the colon. Tonic contraction of bands gate rte colon into a series of pouches called austral which give the colon its puckered appearance.

The myenteric plexus of most of the colon contains large uniformly spliced ganglia, that are connected by thick interganglionic fasicules and secondary and tertiary plexus are well developed. The density of the myenteric plexus is diminished in the ganglia and becomes both smaller and less abundant. The submucous plexus are also present in large intestine.

The last stage of digestion occurs through bacterial action, not b enzymes as secreted by colon. Trough mucus is secreted in large gut no enzymes as secreted by colon. Through mucus is secreted in large gut, no enzymes are secreted. The bacteria ferment an remaining carbohydrates and release a few gases. Several vitamins needed for normal metabolism including vitamin B and K, are synthesized by bacterial action and absorbed. The large intestine also absorbs water, electrolytes including sodium and chloride and some vitamins.

The nervous control of the gastro-intestinal system is mediated by enteric nervous system (ENS) and central nervous system (CNS). The ENS is a independent integrative system with structural and functional properties that are similar to those in CNS. Nerve supply being derived from midgut (up to near the splenic flexure) and hindgut (fro there onwards). The parasympathetic supply to large intestine is partly form the vagi and party form the pelvic splanchnic nerve. The sympathetic supply is form T10-L2 In whole GIT, there are a variety of neural receptor, that can detect both chemical and mechanical...
stimuli. The transmission to the target tissue is rapid and may involve only the ENS or sensor information may be processed in CNS.

The human intestinal flora is highly complex with more than 400 bacterial species isolated from faeces. So, colon is a complex ecosystem, that contains both aerobic and anaerobic microorganisms the total bacterial count in the faeces is said to be $10^{10} - 10^{12}$ colony forming units per ml (CFU/ml). Although there may be fluctuations in composition of the flora. It is still not known, what controls the indigenous microflora. It is obvious that virtue of their enormous enzyme potential, the microflora may have a wide range of influences on the physiology of host. They actively participate in metabolism and nutrition. Various actions of the intestinal flora on the general physiology of host organism have been found.

To return to our fundamental question, How Vasti acts? Any Vasti can produce its effect in two ways:-

**MEDICAMENTSEFFECT**

*(Pharmacological Effect)*

**EFFECT OF VOLUME** *Perssure Effect*

In the process of vasti-karma, several drugs are used for several purposes, in form of decoctions with or without sneha dravyas purposes, in form of decoctions with or without sneha dravyas. The vasti is having its pharmacological effect due to the cumulative pharmacodynamic and pharmacological effect due to the cumulative pharmacodynamic and pharmacokinetic effect of various drugs used in the process. Basically pakwasaya is the seat of Vayu. Apart from it, Pakwasaya is also the seat of various kramis (parasites), especially faecal ones. Some of them are pathogenic and others are non-pathogenic. This concept is very well described by the caraka in vimanstana. It is similar to microflora concept of intestine. Through the medicaments used in the vasti, it can alter the colonic physiology, vasti can counteracts the factors, responsible for causation of disease. It is similar to prakrtivighata of krami-cikitsa. Suitable combinations of drugs, vasti can be useful in number of disorders.

Caraka states that, Anuvasana Vasti when given nourishes all the canals after reaching the Nabhi (main seat of Sira and Dhamni) (C.Si-1/30-31). He also states a particular position for administering Vasti with justification. So vasti can go deep into gastrointestinal tract and produces widespread affects. By proper volume, vasti also produces mechanical (pressure) effect and helps in various motility disorders.

C.Dwarikanath in early sixtees suggested that vasti therapy by virtue of its medicaments greatly influences the normal bacterial flora of colon. By doing so, it modulates the rate of endogenous synthesis of vit B12 which is normally manufactured by colonic flora. This Vit B12 may have a role to play in the maintenance of regeneration of nerves. According to him, it was one of the possible mechanisms through which vasti could help in vatika disorders. However this hypothesis is yet to be tested on scientific parameters.

Devaraj. T.L. and Chaturvedi, G.N. (1971) also studied effect of pancakarma therapy with special reference to vastikarma on colitis. They reported that this Vasti increases the total serum protein and Hb%, reduces the ESR there by suggesting that it arrests the disease process and improves the metabolism of protein. He also reported a significant degree of improvement in their
absorption capacity of vit B12 which further help in maintaining the integrity of vata system. In an other stud, Tripathi, A.K et al (1996) also studies effect of vasti in colitis and found significant results especially vata predominant symptoms of colitis. Similary edirweera, E.R.H.S.S et al (1992) also reported that vasti therapy was more beneficial in cases with predominence of vata and pitta dosa.

VASTI AND GUT BRAIN:-

In Ayurveda much importance as been given to vayu. It controls the entire physiological functions in the human body. Pakwasaya is supposed to be main seat of vaya. Vasti chikitsa is supposed to best therapy for vayu. This is most probably due to it controlling and regulating mechanism over the enteric nervous system (ENS).

The autonomic innervation comprises, components both extrinsic and intrinsic to the colon. The former includes the ganglia, plexuses and nerve fibers that serve the colon, but lies outside its wall. The later consists of rich network of nerve fibers and ganglia cells situated within the layers of the colon wall. Although the extrinsic components are clearly of greater functional significance. The circuitry by which the enteric nervous system of colon, these neural elements within the wall of bowel, integrates and modulates contractile events is still unclear, Wood (1981) described the enteric nervous system as “The brain of the Gut”, that integrates informations received and issues and appropriate response. Enteric nervous system is connected to the central nervous system by for more afferent fibers than afferent fiber. Further more, gut brain (ENS) integrates sensor information from mucosal receptor and organizes an appropriate motor response form a choice of predetermined programmes. So enteric nervous system of gut brain is an independent integrative system wit structural and functional properties, that are similar to those in CNS (wood, 1981) and Physiological and pharmacological properties of Vasti cikitsa are said to be outcome of modulation of Gut brain up to certain extent.

It is also reported in some studies (Ayurvediya Pancakarma- by Kasture) that after vastikarma, There is reduction of pyrubic acid content of ketoacids in blood, Due to reduction in pyrubic acid content, three is rise in vit B1 in blood which is responsible for integrity of peripheral nerve functioning and prevents its degeneration. This vitamin also influences the heart and circulatory system.

CONCLUSION:-

Vasti therapy is one of the most important therapeutic procedures in Ayurveda. Its effects are not only limited up to rectum and samsodhana of malas (faeces) but main focus of this article was on its action on the body. We have already discussed various views and studies. We are fully supported the views given by sastry, M.K. avd singh, R.H. (1993) about its possible mechanism of action. In addition we have said that vasti can produce its effect though medicament effect (pharmacological effects) and effect of volume (pressure effect). Thus with the help of suitable medicaments vasti therapy may modify the colonic physiology and alter pathogenic krmis, by prakrtivighata. On the other hand certain vasti ma enrich the normal bacterial flora of the colon and ma be expected to promote their sustaining role in body. By doing so, it modulate the rate of endogenous synthesis of Vit V12, which ma have a role to play in maintenance or regeneration of nerves. Thus by improved functioning of neural system vasti could
help in vatika disorders, secondly, vasti through the volume of its contents may produce an therapeutic intravisceral pressure influencing various receptors in rectum and lower part of colon and result ma be absorption of medicaments leading to added vasti effect.

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