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Generic Advancements in Basti

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ABSTRACT

In all *Ayurvedic* texts, the significance of *Basti* is highlighted as much as to call it half of the treatment or even complete treatment by some *Acharyas*. Among all the therapeutic procedures, *Basti* is superior, because it has the ability to produce multidimensional therapeutic effects according to the drug used. There is no therapy equivalent to *Basti* because it pervades all the three *Rogmargas*. Many *Panchakarma* therapies are limited to either *Koshtha* or externally on joints but *Basti* alone is the one which spreads to all the channels thus making itself the best therapy. As there has been difficulty in procuring the classical instruments for *Basti* and as the *Bala* (Strength) of patients over the period of time has reduced, it has become the need of hour to probe deeper into the subject, so as to revive the ancient techniques on a new platform and understand old principles in a new expressive way.

KEYWORDS

Advancements, Basti, Panchakarma



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INTRODUCTION

Antiquity of Ayurveda goes back to Vedas. In spite many unfavorable of circumstances, Ayurveda has continued to flourish through all ages and has persisted unbroken professional practice in thousands of years. The great ancient Acharyas had developed parameters for Ayurvedic procedures and medicines according to their era, so it is the need of the hour to establish the parameters suitable for modern era without compromising with the principles.

Two treatment modalities have been described by Acharyas – *Shodhana* and *Shamana*. Among *Shodhana* procedures, *Basti* is considered the supreme therapeutic modality. Its varied applicability and highest disease curing ability bound Acharyas to entitle it as *Chikitsardha*¹. Emphasizing on the importance of *Basti*, Acharya Parashar opined that *Guda* (anus) is the main root of the body and having blood vessels in it. If *Basti* is administered in *Guda*, it nourishes all the limbs and organs of the body.

Absorption of Basti

Medicines administered through the rectal route are absorbed in the rectum and large intestines. The rectum has rich blood supply and drugs can cross the rectal mucosa like other lipid membranes. The portion which is absorbed from upper rectal mucosa is passed by superior Haemorrhoidal veins into Portal circulation, whereas Middle and Inferior Haemorrhoidal veins absorbs from lower rectal mucosa, and enters into systemic circulation via Internal iliac vein and Inferior vena cava². The major site of production and absorption of short chain fatty acids is colon. Thus fat soluble substances may be absorbed from colon.

Brimhana Basti improves the health of the bacterial flora of the intestine, thereby enhancing the production of Vitamin K and B complex (Patel B.N. et. al. 1966). Both the vitamins are much essential. particularly B complex plays significant role in preventing degenerative neurological disorders. Basti normalizes the whole metabolism. Niruha Basti by its cleansing action minimizes the toxic load in the large intestine reducing burden on the liver, allowing the eliminative organs to function optimally.

Need for current procedural modalities

Acharya Charaka quotes the one who has not read the science or understood it in depth, will never succeed in his clinical endeavors³. The scholars of Ayurveda yearn that the studies should not be done to prove what ancients have said, but to revive the ancient past techniques on a new platform and glamorize old principles in a new attire. It is true that fundamentals on



which science is based cannot be changed but for wider applicability, demonstration of these principles, their reliability and utility in a much practical way according to present scenario is needed.

The classical texts of *Ayurveda* have given liberty to the *Vaidya* to contemplate and amend the instruments, line of treatment, modality wherever required without losing its staple principles.

In this paper, the priority areas will be:

- 1. The changes that have taken place in terms of instruments- *Bastinetra*, *Bastiputaka*.
- 2. Changes or reduction in the *Bastidrava matra* according to the *Bala* of patients in the current scenario.
- 3. Modifications in instruments for the mixing of *Dravyas* or preparation of *Bastidrava*.
- 4. Importance of maintaining the temperature of *Bastidrava*.
- 5. Posture for administration of *Bastidrava*.
- 6. Posture for evacuation of *Basti*.

Bastinetra

Materials used for Nozzle of *Bastiyantra*/ Bastinetra

<u>Classics</u>: Gold, Silver, Copper, Bronze, Tin, Lead, Iron, Bones, Bamboo etc.

In current practice due to high rates of Gold

and Silver, no one uses these metals for preparation of *Basti* Nozzle.

Current practice:

- Brass *Netra*
- Plastic *Netra*
- *Netra* with body made of Brass and inserting part made of plastic
- Urinary Rubber Catheters no. 11, 12 Disadvantages of Urinary Rubber catheter: Use of Rubber catheter is unique as they are easy to use. But on same lines, rubber catheters are inappropriate for Basti administration, if classical reference is thought of, as few inequities like Vakra (Curved), *Parshvachhidra* (lateral opening) and Dirgha (longer in size) are associated with Rubber catheter. So, to rule out this defect, many people cut the first few centimeters of *Netra*. But again the ends of the catheter become very sharp and may cause injury while subjecting it inside the anus. Thus, while using Catheters also one should be very careful.

Dimensions of *Bastinetra*

Under this heading it is necessary to have an insight over Anatomy of *Guda* (Anus).

Classics:

Acharya Sushruta in Nidana Sthana has mentioned that the large intestine, which merges into the flexure of rectum and measures four and a half Angula in length, is called Guda, the interior of which is lined with three spiral grooves. Each of these grooves or rings like muscles lay 1.5



Angula apart, and is respectively known as *Pravihini*, *Visarjini*, and *Samvarani* covering a space of four fingers and having laterally an elevation of 1 *Angula* width⁴.

Modern

The anal canal is about 1.5 in. (4cm) long and passes downward and backward from the rectal ampulla to the anus. It is thrown into vertical folds called anal columns, which are joined together at their lower ends by small semilunar folds called anal valves (remains of proctodeal membrane)⁵. These anal valves are:

- 1. First Houston's fold or valve, pelvirectal fold (Superior /outer layer): Helps in contraction of intestines.
- 2. Second Houston's fold or valve (Middle layer): Helps in evacuation
- 3. Third Houston's fold or valve / Plica transversalis recti (Inferior / Inner layer): Helps in contraction of sphincters, closes the orifice.

In context of length of *Bastinetra*, *Acharyas* have advised the use of different sizes of *Bastinetra* according to age. Moreover there is difference in opinion among various authors regarding the size of *Netras*. To follow such concepts, large numbers of sets of nozzles are required but this is not practically feasible. So, unique *Bastinetras* with adjustable *Karnikas* or nozzles can be used.

Classics:

Length of *Bastinetra* in grown up Adult is 12 *Angula* (23.4cm).

1st *Karnika* is at 1/4th length of *Netra* i.e. 3 *Angula* (5.85 cm)

Current practice:

Practically Adult size nozzle of following dimensions can be used.

Length: 15cm

Bottom Diameter: 2cm

Top Diameter: 6mm

1st *Karnika*: at a level of about 4cm

Probable Justification:

Calculating the anal measurements, *Basti Netra* of 15 cm length with *Karnika* at 4cm lands up in between *Pravihini* and *Visarjini valis*, crossing over the main centers of defecation, chances of sudden expulsion are ruled out. When the *Netra* is in between the *Valis* and pressure is applied to *Putaka*, it further enhances the *Bastidrava* to go to *Pakvashya* for better mode of action.

Bastiputaka

<u>Classics</u>: Urinary bladder of goat, deer, cow etc⁶. or bags of thick cloth prepared with strong fibers lubricated with bees wax.

As getting animal bladders seem out of question today, various options have erupted in place of conventional *Bastiputaka*.

Current practice:

Putaka: Anything that is disposable/ easy to clean/ can hold liquids without reacting



with it can be used as *Putaka*. These days people use-

- Double layered plastic bags.
- Urine collection bags.
- Rubber bags.
- Suction bulb (in Children)
- Syringes
- Basti can / Enema Pot

<u>Disadvantages of Syringes</u>: It imparts a strong linear pressure which may injure the soft tissues of rectum.

Advantages of Putaka: Putaka made of bags may have the capacity of exerting an overall equal pressure. When the homogeneous emulsion of Bastidrava enters the colon with uniform positive pressure within short time, it reaches up to proximal colon and probably exerts procedure effect⁷.

Enema Cans: are they Justifiable to *Basti* therapy??

Advantages of Enema Cans:

- 1. Easy to administer
- 2. Easy to clean and sterilize
- 3. With transparent tubes, any air bubble if any can be checked easily

<u>Disadvantages of Enema Cans:</u> The main principle of *Basti* is Pressure. Because it is the Vega of the *Bastidrava* which acts as antagonistic to the *Prakupit Vayu* in the body. But, in enema cans it is just a slow drift of *Basti* medicines into the *Guda*. Such

a slow transfer reduces the potency of the therapy.

In a study conducted by Dr. Manohar S. Gundeti⁷, on two different modes of administration of *Basti*, following results were found:

1. The *Basti* administered (960 ml) with *Putaka* took less time (60 sec) for administration than with enema pot at a height of 4 feet from bed (about 10 min).

In case of enema pot, long time of administration may cause fall in the temperature of *Bastidrava* during the process of administration and many times it reaches less than the body temperature, when it enters the rectum. Moreover, putting catheter for long time in rectum, increases peristalsis of intestine and decreases retention time and also causes discomfort to the patient⁸. The delay in administering the *Bastidravya* in colon is a *Bastidosha* called *Ativilambita*, which is not desirable.

2. Radiograph of patient who received *Basti* with *Putaka* showed ample filling of sigmoid colon and added propelling of *Bastidrava* through colon towards Ileocaecal junction where it has almost occupied the Ascending Colon. While the radiograph of patient who received *Basti* by Enema pot showed added filling of Sigmoid colon, propelling the *Bastidrava* through colon reaching the Ileo-caecal junction but



the amount of *Bastidrava* was less at that point in comparison to first case.

Bastidrava Matra

Niruha Basti

<u>Classics</u>: The total quantity of Niruha Basti is 12 Prasruta standard dose as mentioned by Acharyas⁹.

But it is a huge amount according to the present scenario and *Acharya Kashyapa* has also quoted that this example of measurements in *Prasruta* is for superior one. Looking into the strength and weakness of disease and patient, this *Matra* can be increased or decreased according to the properties of *Dravya*¹⁰.

<u>Current practice:</u> In current scenario, it is practically seen that *Vaidyas* give reduced quantity of *Bastidrava*. In this regard 9 *Prasruta* may be considered in today's practice as mentioned by *Acharya Vagbhata*¹¹.

Dose of *Kalka* as mentioned in classics is 1 *Prasruta* (96gm). But such amount of *Kalka* in practice will make the solution highly viscous and can produce dehydration. So, the amount of *Kalka* can be decreased according to the *Dravyas* used.

Anuvasana Basti

<u>Classics</u>¹²: *Pravara Matra*:6 *Pala* (288ml)

Madhyama Matra: 3 Pala (144ml)

Avara matra: ½ Pala (24 ml)

Anuvasana literally means that which remains in the body for some time without causing any adverse effect. Acharyas say that for appropriate unctuous effect, Basti should retain for 3 Yama (9 Hours).

If Avara matra is given, it will not properly retain, and if Pravara matra is given, it will soon be evacuated. Thus, the purpose will not be served in both cases. So, Madhyama Matra can be used for Anuvasana in current scenario.

Modifications in instruments for preparation of *Bastidrava*

Classics: Khalvayantra (Mortar-pestle).

Procedure of preparation of *Basti*:

<u>Classics</u>: Acharyas say, honey and salt should be mashed in a separate pot. Slowly *Sneha* is added followed by addition of *Kalka*. After this, entire mixture should be mixed with *Kwatha* and churned in a deep vessel with ladle (*Khaja*) so as to make it neither too thick nor too thin¹³.

Current Practice:

- End runner
- Hand Blender
- Electric operated *Mathani*
- Churner
- Mixer

Following are some results from the study conducted by Dr. Yashwant M. Juneja et.al. (2009):



- Stable *Basti* colloid can be prepared in mortar pestle and also in mixer but not with Household Blender.
- Basti Drava prepared using Mixer were found to contain lots of bubbles and oil particles on the surface which may be thought to increase Vata in Basti, but the study concluded that there was no complication or deviation from the results.
- There was no significant difference in stability of Basti colloid even after using different sequences of mixing the ingredients of *Basti*.

Administration of *Bastidrava*Temperature of *Bastidrava*:

<u>Classics</u>: Regarding the temperature of Bastidrava, Acharyas have mentioned that Bastidrava should neither be too hot nor too cold¹⁴.

Too hot *Bastidrava* will cause burning sensation and diarrhea and may even lead to shock.

Too cold *Bastidrava* will produce constipation and flatulence.

<u>Current practice</u>: In current practice the temperature can be maintained between 99^o F-100^o F.

(Temperature is less in *Kshira* and other *Pittashamana Basti*)

Table / Bed:

Regarding the table/bed, *Acharyas* have mentioned that height of bed must not be

too high, should be comfortable in level, or which is slightly low in level at the head side¹⁵. Height of bed should be proper as to facilitate *Bastidrava* to spread uniformly all over the body. Keeping this in mind, table can be taken of knee height.

Posture for administration of *Basti*:

Acharyas have quoted that *Basti* should be administered strictly in the left lateral position.

Dr. Yashwant M. Juneja (2009) in his study found that the retention time of *Basti* in left lateral posture, when administered by *Bastiputaka* was more than the retention time in right lateral posture.

The logic behind left lateral posture for the proper administration of drug can be explained in the following manner

When patient lies in left lateral 1. posture, then the descending colon, rectum and anal canal lie approximately in same line or at the level of bed. So, *Basti* drug gets opposition only from peristaltic movement of intestine, which is counter the pressure applied acted by Bastiputaka. While in right lateral posture, descending colon makes an angle with rectum and anal canal, so to move the drug, extra pressure is needed to overcome backpressure or resistance from the intestines. If pressure is not enough, it can come out and no absorption of *Basti* takes place.



2. Middle rectal valve (Kohlrausch's valve) is the strongest valve and plays important role in the process of defecation. Its situation being on the right side, administration of *Bastinetra* into rectum in left lateral position spares the middle valve from possible injury in right lateral position thereby preventing otherwise possible complication- fecal incontinence.

Posture for evacuation of Basti

Classics:

Patient after getting the urge should eliminate the faeces sitting on his heels¹⁶. (Squatting position).

<u>Current practice</u>: Western toilets are widely used (Sitting position).

Benefits of evacuation in Squatting position:

- 1. The Indian type of toilet is more conductive to thorough evacuation than the western toilet as human beings are designed to execute their bodily functions in squatting position.
- 2. Despite all the straining, the caecum never gets evacuated in the sitting posture. By contrast in squatting posture, the right thigh squeezes the caecum from its base. Its contents are thoroughly expelled into the ascending colon where peristalsis carries them away. There is no need to hold one's breath or push downwards, since posture generates the pressure automatically¹⁸.

- 3. In squatting position, gentle pressure from diaphragm supplements gravity.
- 4. Squatting position relaxes the puborectalis muscle which chokes the rectum during sitting position.

Thus, *Basti* should be evacuated only in squatting position unless there is severe compression (Grade III) of the knee joint.

CONCLUSION

Acharyas emphasize that one should continuously think and ponder on new problems, so that according to the changing conditions of the climate, civilization, environment Ayurveda can adapt itself. In Science, if there is change, then it should be for better result or efficacy. But if the change is not fulfilling the basic criteria, should be scrutinized it and appropriate changes in the procedure should be brought in such a way that it will fulfill the criteria of that science, giving better result to the patient. Thus a rational handshake between the two systems can improve patient care and contribute to the revival of science to its ancient pristine glory.



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