



ANTI INFLAMMATORY EFFECT OF BASTI THERAPY (MEDICATED ENEMA) IN THE PATIENTS OF PSORIASIS (EK KUSTHA)

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ABSTRACT

Ek kustha is a type of kshudra kustha described in different Ayurvedic classics. It is a vata-kaphaj disorder. The clinical symptom of Ek kustha described in Ayurveda resembles with the clinical symptom of Psoriasis. The clinical feature of Ek kustha described by Kashyap represents remission, relapse and seasonal variation, which are present in Psoriasis. Psoriasis like other skin disorders is challenge to the medical sciences. In modern medicine there is no definite treatment for this disease. The medicines, which are available to treat the disease, are not very effective and cannot be used for long-term management because of their local and systemic side effect as well as toxicity. Medicines, which are used in Ayurveda, are safe and being practiced since thousands of year. A large number of drugs and measures are described in Ayurveda for the treatment of Kustha. This study was designed to access the anti-inflammatory activity of Basti Therapy (Medicated Enema) in the treatment of Ek kustha (psoriasis). The study was randomized open phase clinical trial. Basti planned for the therapy was Yoga-basti Karma in which Anuvasana basti was given using Mahanarayan tail while Niruh basti was given using Dashmula quath in accordance with Aharya Charak as mentioned in Siddhi Sthana 1/25. Keeping this view in mind we have started basti therapy in the patients of osteoarthritis and found encouraging results.

The patients of age group 18 to 60 were selected on the basis of Ayurvedic signs and symptoms of Ek kustha. Observations were recorded for sharply defined erythemo-squamous lesions varying in size; presence of erythema, scaling and induration in the lesions; surface consists of non-coherent scales; positive Auspitz sign – (Bleeding occurs after scratching of scales); positive onion peeling sign/candle grease sign (after scratching the scales fall like peels of onion). The laboratory values of TLC, DLC, ESR and CRP were also recorded before and after the treatment. Since the assessment criteria was Quantitative, paired 't' test was applied. In the current study the treatment was found significantly effective in treating psoriasis. So, we can conclude that leech therapy is effective in the treatment of psoriasis.

KEY WORDS: Psoriasis, Anti-inflammatory, Basti therapy, Ek kustha

INTRODUCTION

Ek Kustha is a type of Kshudra kustha described in different Ayurvedic classics. It is a vata-kaphaj disorder^{1,2}. The clinical symptom of Ek Kustha described in Ayurveda resembles with the clinical symptom of Psoriasis. The clinical feature of Ek Kustha described by Kashyap represents remission, relapse and seasonal variation which are present in Psoriasis. It is one of the common dermatological problems in the world.

Psoriasis is a papulosquamous dermatosis of unknown etiology with spontaneous remission, relapse and seasonal variation. It clinically presents with lesions of varying size and configuration, distributed all over the body with silvery scales, covering loops of dilated superficial capillaries underneath which are presented as tiny bleeding points on removal of scales (Auspitz's sign). It affects about 2% of world population. Various races and communities differ in the susceptibility to this disease. In India it affects about 1.5% of population including both the gender. It appears to be common in Europeans than in Orientals³.

Psoriasis like other skin disorders is challenge to the medical sciences. In modern medicine there is no definite treatment for this disease. The medicines, which are available to treat the disease, are not very effective and cannot be used for long-term management because of their local and systemic side effect as well as toxicity. Medicines, which are used in Ayurveda, are safe and being practiced since thousands of year. Ayurveda propounds a very distinct principal of biopurification because of the complex nature of its aetiopatogenesis. Panchakarma is a very unique therapeutic procedure, because of it's preventive, promotive, prophylactic and rejuvenative properties as well as providing the radical cure. Basti therapy (medicated enema) is one of the best

therapies mentioned in Ayurvedic classics for various disorders^{4,5}. Yoga basti karma is one of the type of Basti Chikitsa. Basti planned for the therapy was Yoga-basti karma Karma in which Anuvasana basti was given using Mahanarayan tail while Niruh basti was given using Dashmula quath in accordance with Aharya Charak as mentioned in Siddhi Sthana 1/25. Keeping this view in mind we have started basti therapy in the patients of osteoarthritis and found encouraging results.

MATERIALS AND METHOD

Plan of the Basal Study

The patients fulfilling the diagnostic criteria were selected for the study and interviewed thoroughly along with their family members and/or relative to obtain detailed information about the patient as well as the disease and collected in different data viz-

1. Demographic profile
2. Clinical profile

Duration of treatment

The total duration of treatment was fixed for six weeks with the regular weekly follow-ups. The patients registered for clinical study were advised to not to take any other drug during the trial period both internally and externally.

Criteria for diagnosis of Ek kustha (Psoriasis)

1. Sharply defined erythemo-squamous lesions varying in size.
2. Presence of erythema, scaling and induration in the lesions.
3. Surface consists of non-coherent scales.
4. Positive Auspitz sign – (Bleeding occurs after scratching of scales).
5. Positive onion peeling sign/candle grease sign (after scratching the scales fall like peels of onion).

Inclusion Criteria

1. The patients were clinically diagnosed according to Ayurvedic signs and symptoms.
2. Age-18 to 60 yrs.
3. Sex- Either
4. Marital status- Either
5. Socioeconomic status- All classes.

Exclusion criteria

1. Patients having age less than 12 yrs. and more than 60 yrs.
2. Patients having inconclusive diagnosis.
3. Patients of psoriatic arthropathy and psoriatic erythroderma.
4. Patients having cardiac disease, renal disease and endocrine disorders were excluded in the study to avoid overlapping of symptomatology.

Materials used in Basti Karma - Instruments and ingredients used for the administration and preparation of Yoga Basti are as follows -

Instruments -

1. Abhyanga table
2. Nadi Swedan Yantra
3. A bladder wash syringe of 100 cc as Basti Putak
4. Rubber Catheter of no.7 &12 as Basti Netra
5. Plastic gloves.

Ingredients -

1. Mahanarayan Tail
2. Dashmula Quath
3. Madhu
4. Saindhav Lavan

Yoga Basti Karma : The selected ingredients for Yoga Basti Karma were supplied by B.H.U Ayurvedic pharmacy. We had administered Basti Karma in accordance with Aharya Charak as mentioned in Siddhi Sthana 1/25.

Schedule -

- | | |
|--------------|--------------|
| 1. Anuvasana | 5. Niruh |
| 2. Anuvasana | 6. Anuvasana |
| 3. Niruh | 7. Niruh |
| 4. Anuvasana | 8. Anuvasana |

Thus, five Anuvasana and three Niruh Basti were given in this study by Vyatysat Kram. Three course of the same schedule were given each month.

PROCEDURE FOR BASTI THERAPY (MEDICATED ENEMA)

Procedure for preparation of Basti

Anuvasan Basti: Madhyam Matra of Anuvasan Basti dravya is 3 Pala i.e. approx 160ml. So, for this purpose 160ml of lukewarm Mahanarayan Tail were mixed properly with 5 ml honey and approx 1 gm Saindhav Lavan. It was administered with the help of 100ml. of disposable syringe and sterilized plain catheter (7No.).

Niruh Basti: Three Niruh Basti were administered during this course on 3rd, 5th, 7th day of Basti Karma. Madhyam Matra of Niruh Basti Kalpa is 12 Pala i.e. approx 640 ml. For the preparation of Niruh Basti, we firstly prepared Dashmula Quath in following manner -

200 gms Dashmula Quath + 3.2 liter water
(16 times of drug) —————> Boiled

Then few Vatanulomak Dravyas like Sounf and Ajmoda (5 gms each) were added in the powder form in it and it were kept covered for 5 minutes and it was filtered with fine cloth. Finally for the preparation of Niruh kalpa 120 ml of Mahanarayan Tail, 100 ml of Madhu, 1 TSF (5 gms approx.) Saindhav Lavan and 400 ml of Dashmula Quath were mixed

properly. The sequence of mixing was as follows – Firstly Madhu and Saindhav Lavan were mixed properly with the help of c f stirrer. Then Mahanarayan Tail was mixed in it and then after luke warm Dashmula Quath was added and stirred properly. Later it was filtered with fine cleaned cloth and then was administered with the help of sterilized urobags.

Qualities of prepared Basti Dravya -

After preparation of Basti Dravya, following points were taken into account -

- (1)The prepared Basti Dravya was homogenous in nature.
- (2)Basti Dravya was kept at body temperature at the time of administration.
- (3)No oil drops were seen floating on the surface of Basti dravya.
- (4)Consistency of Basti was not so thick and not so liquid.

Procedure for administration of Basti - The procedure for administration of Basti was followed according to the references of A.H.19/22-26, are as follows—

1. Patient were asked for proper evacuation of bowel before administration of Basti Kalpa.
2. The patient were subjected to local Abhyanga (with Mahanarayan Oil) and Swedana (Nadi Sweda) for 10 minutes each on same the day before giving Basti therapy.
3. Posture – Left lateral position with left lower extremity straight and right lower extremity flexed on left knee joint.
4. Oleation of anus – Mahanarayan Tail was used for the oleation of Guda Marga.
5. The patient were asked to take deep breath during the course of Basti, when basti Kalpa were introduced into the anus.
6. During the insertion of Basti Netra into Guda Marga, Gudakshat and anal injuries were avoided.
7. Too quick and too slow introduction of Basti kalpa were avoided.
8. Patency of Basti Netra was assured before the administration.
9. Basti Kalpa was given after proper Adimantran of Aushadhies.
- 10.Total Basti Dravya were not introduced into Pakvashaya in order to avoid the entry of Vayu into Pakvashya, which can produce pain.
- 11.Basti tube was immediately pulled out after the introduction of Basti Kalpa.
- 12.Patient were asked to remain in same posture for minimum half an hour.
- 13.After the administration of Basti the buttocks were patted with the palm of hands and full slightly same finger of both the feet. After that the gentle massage with Mahanarayan Tail was done in the soles, heels, fingers, calf muscles, shanks and other painful parts. After that, patient were asked to lie down in supine position and to sleep with pillow beneath the head in order to prevent its early expulsion.
- 14.Light fibrous diet was advised in the night according to the Doshik involvement of the particular patient. Diet preferred was not constipating in nature.

Scoring (PASI Score)

The four main anatomical sites are assessed. The head (h), upper extremities (u), trunk (t) and lower extremities (l) roughly corresponding to 10, 20, 30 and 40% of body surface

area (BSA), respectively. The PASI Score is calculated as follows⁶ –

$$\text{PASI} = 0.1 (E_h + S_h + I_h) A_h + 0.2 (E_u + S_u + I_u) A_u + 0.3 (E_t + S_t + I_t) A_t + 0.4 (E_L + S_L + I_L) A_L$$

Where E = Erythema, S=Scaling, I=Induration and A=Area
E, S and I are assessed according to a '4' point scale where

- 0 = No symptoms
- 1 = Slight
- 2 = Moderate
- 3 = Marked
- 4 = Very marked

'A' is assigned a numerical value based on the extent of lesion in a given anatomic site:

- 1 (<10%)
- 2 (10-29%)
- 3 (30-49%)
- 4 (50-69%)
- 5 (70-89%)
- 6 (90-100%)

Scoring criteria for other symptoms

- Score 0 - No symptom
- Score 1 - Mild
- Score 2 - Moderate
- Score 3 - Severe

Parameters of Assessment

1. Estimation of Psoriasis area severity index (PASI Score).
2. Patients report as his own observations.
3. General assessment of the doctor (researcher).
4. Photographs taken at regular intervals.
5. Side / toxic effects of the drug, if any

OBSERVATION AND RESULT

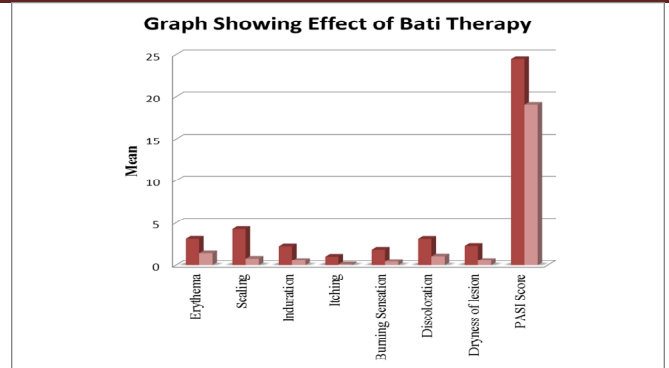
All statistical analysis is done by student unpaired t-test 'p' value <0.001 were considered to be statistically highly significant. The 'p' value >0.05 were considered to be non-significant.

All the observations in reduction of symptoms and statistical analysis are given in table.

Table 1: Showing the effect of therapy in patients of Ek kustha (Psoriasis)

Symptoms	Mean ± SD		Paired t-test BT-AT
	BT	AT	
Erythema	3.19 ±0.78	1.44 ±0.56	1.75±0.76 t=12.99 p<0.001
Scaling	4.28 ±0.73	0.81 ±0.64	3.47 ± 0.80 t=24.45 p<0.001
Induration	2.21 ±0.41	0.56 ±0.50	1.65 ± 0.69 t=13.90 p<0.001
Itching	1.04 ±1.22	0.10 ±0.30	0.94±1.11 t=6.12 p<0.001
Burning Sensation	1.83 ±1.20	0.43 ±0.63	1.42±1.13 t=9.11 p<0.001
Discoloration	3.17 ±0.76	1.08 ±0.62	2.09±0.72 t=20.96 p<0.001
Dryness of lesion	2.26 ±0.45	0.56 ±0.50	1.50 ± 0.50 t=12.62 p<0.001
PASI Score	24.49 ±7.88	19.00 ±6.19	5.49±3.66 t=10.81 p<0.001

BT- Before treatment, AT- After treatment



Graph 1: Showing the effect of therapy in patients of Ek kustha (Psoriasis)

DISCUSSION

Medicine is as old as mankind and the science of medicine like any other form of knowledge is better appreciated from the records of its evolution. It is clear from all the classical texts that Vayu is the moving force of other Doshas, Dhatus and Malas, which constitute the human body. Vayu is constantly in motion in the body even in the healthy state and is moving through all the channels of the body (Strotas). Hence it is essential that all body channels (Strotas) should have Sneha as one of their constituent, which act as lubricant for the passage of Dosha, Dhātu and Mala. To keep these channels clear, patent and dilated, Basti is the best recommended procedure. Basti exerts various actions in the body. Any drug/therapy usually acts on the body through –

1. Disintegration of the drugs
2. Dissolution of the drugs
3. Absorption
4. Metabolism

Administration of Yoga Basti containing Dashmula Quath in Niruh and Mahanarayan Tail in Anuvasan increases the Dhatvagni (metabolic process). With the increase of Dhatvagni, Poshana (nutrition) of all Dhatus increases, as a result of which Asthi and Majja Dhātu get strengthened and consequently Asthi and Majja Dhātu Kshaya decreased. So the degeneration process of Asthi Dhātu slows down. Basti produce reduction in pain, swelling, restriction of movement, stiffness and a little bit in crepitations. The therapy may also improve general health and may cause the slowing of degenerative process of the body.

Though any clear notion regarding the mode of action of Basti has not been mentioned in classics, however a collection of information about Guda Sharir, its relations, its physiology etc. gives compendious information about it. Medicines are administered in Pakvashaya, which is constituted by the Prasada part of Rakta and Kapha in association with Vata and Pitta (Su.Sha. 4/26) and Mansa (A. S. Sha 5/47). Guda is one of the Pranayatana and a Mansa Marma of Sadyapranahara type (Su. Sha. 6/9). Being a Marma it has roots of all types of Siras embedded in it viz. Vatavaha, Pittavaha, Kaphavaha and Shonitavaha (Su. Sha. 6/18). Due to its Sadyapranahara nature, Guda is highly sensitive. Even a mild stimulation to it by Basti drugs and procedure, may sensitize the whole body by vigorous action of Vayu through all the Siras present in the body. This physiology confirms the immediate and all pervasive action of Basti drugs.

Relations of Guda

- Apan Vayu- Apano Apanagah
- Prana Vayu- Sadyapranahara Marma
- Vyan Vayu- Vyan is all pervasive

Saman Vayu- *Koshthe Charati Sarvatah*

Pachak Pitta

Sira, Snayu, Sandhi, Asthi and Mansa Sannipata- as a Marma (Su. Sh. 6/15)

Kala- Maladhara, Asthidhara and Majjadhara.

Dhatu- Rasa, Rakta, Mansa, Meda, Majja & Shukra (Nanal, 1988)

From the above cited relevance, it can be said that, Basti exerts its action over whole body. However, it acts mainly on the structures related to Guda. Basti drugs in Pakvashaya act on whole body in a same way as the Sun, which has been placed in the sky, causes evaporation of water from the earth. The Veerya of Basti drugs is first taken up by Apan Vayu, with which it comes in contact first and improves the functional ability of Apan Vayu. Consequently the Saman Vayu get affected, followed by Vyan, Prana and Udan Vayu. By the Gunas of Basti Dravya, the vitiated Vayu regain their normal state and starts supporting the body as a Dhatu. Basti is also helpful in conversion of vitiated Pitta and Kapha into their normal state. By the virtue of Basti, five types of Vayu restart nourishing their respective Sharir-Bhuta Guna.

The Veerya of Dravya are propagated through Vyan Vayu in Tiryak or lateral direction, through Apan in downward direction and in upward direction by Udan, just as water pipes carry water to the different parts of the field similarly the "Harini" (Channels) carry the Gunas of the Basti Dravya to every part the body. Hence Basti Dravya quickly spreads throughout body with the help of Vata, Pitta and Kapha through the Sira due to which Basti enables to cure even the most difficult disease (A. S. Ka. 5/24).

Pakvashaya is the site where Poshak Rasa originates and provides the nutrition to all Vayus. As Basti is administered in its Udbhavasthana, it is capable to control all five Vayus. However, it acts more on Saman and Apan Vayu because it is in direct contact with them at their natural places. Reaction sequel is produced by Basti, which passes over all cell-to-cells, to the every part of the body and owing to the specific affinity to the Pakvashaya; the waste products are thrown into it.

Basti may be absorbed by diffusion, filtration, osmosis or by adsorption. The medicines may have specific affinity to a particular tissue, whether absorbed or causing reactionary changes without absorption or by their chemo-tactic action, the results are brought to every cell of the body. They probably give energy, strength and quality to the Dhatus and eliminate the excreta from Pakvashaya. Production of Thiamin, which is necessary for nerve conduction and which is produced in large intestine, may be stimulated by Basti (Sadanand et al.1961).

Basti mainly acts on ascending colon, descending colon, rectum, anus and their nerves. Prolong use of unwholesome diet leads to blocking of the micro- channels present in GIT that absorb Rasa Dhatu. Furthermore due to stagnation, this Mala (intestinal toxins) get reabsorbed in the body. These reabsorbed Mala produce various ailments. Basti radically removes these entire Mala factor from the intestines and thus cures the diseases (Ek Ayurvediya, 1940). Basti may acts through the nervous system or through the enteric receptors. It may increase the secretion of local enzyme or neurotransmitters. Basti may influence the normal bacterial flora thus it increases the endogenous synthesis of Vitamin B₁₂, Vitamin K etc. Basti makes the whole metabolism normal. (Shah et al. 2006).

Processed oils used orally or introduced in colon in the form of Basti should now be compared for their effects. When given orally the Snigdha Dravya travels from mouth to anus i.e. in the alimentary track, during this travel the Sneha is digested and processed by Jatharagni, this digested Sneha is then absorbed in microfinned form and circulated by Vyan Vayu with Rasa Paribhramana all over the body. In this form the Sneha is Madhur Vipaki, which mean it may be Kleda Vardhaka, Poorana, Abhishyandi. Sneha Dravyas given in the form of Basti are more effective than they are given orally. Following may be reason according to my humble understandings :

1. Jatharagni action does not take place.
2. Pakwashaya is the main site of Vayu. This is the area of G.I.tract where the Katu Vipak of food takes place. Hence, the sneha placed in that area is absorbed faster. As there is a Katu Vipak Awastha of ingested food, along with Sneha Basti it increases the Vyavayi guna of Basti Dravya, which may pacify the vitiated Vata easily.
3. Orally given Sneha Dravyas i.e. Snehapana may cause Upachaya, Kleda, Gauravata, Abhishyanda etc. but this possibility reduces or not possible if Sneha Basti is given.
4. Anuvasan Basti can be given daily in a dose of 120 ml/day or Matra Basti can be used in a dose of 60ml/day.
5. As the sneha is placed in Pakwashaya it, oliates that part of the alimentary tract. This oiliation is responsible for Apan Vayu Anulomana and better absorption. Hence, it seems logical that disease caused by Apan Vayu and all other Vayus are cured by Basti chikitsa. As Apan is the Vayu, which nourishes the other Vayus. When Apan Vayu gets vitiated and its course changes, all other Vayus also get vitiated. If Apan Vayu is pacified, the movements of other Vayus also get corrected.
6. Pakwashaya is lined by Purishdhara Kala, this Kala is also known as 'Asthidhara Kala'. Hence, Asthi Poshan is more effectively achieved if the medications are given directly in Pakwashaya.
7. 'Majjadhara Kala' is situated in the Grahani. So some part of Basti Dravyas can nourish the Majja Dhatu.
8. According to Kashyapacharya Vatasthana is situated below umbilical level in Asthi, Majja. So the Basti introduced in the Pakwashaya eliminates or pacifies the vitiated Vata Dosha and diseases of Asthi, Majjavaha strotas.

According to modern medical science, as per Basti /Enema is concerned, in trans-rectal route, the rectum has rich blood and lymph supply and drug can cross the rectal mucosa like other lipid membrane. Thus by entering in general circulation, Basti drugs acts on whole the body. Basti may act through the nervous system or through the enteric receptors. It may increase the secretion of local enzyme or neurotransmitters. Basti influences the normal bacterial flora, thus it increases the endogenous synthesis of vitamin B₁₂, vitamin K etc

CONCLUSION

In the current study the treatment was found significantly effective in treating psoriasis. The effect of treatment was t=12.99 for erythema, t=24.45 for scaling, t=13.90 for induration, t=6.12 for itching, t=9.11 for burning sensation, t=20.96 for discoloration, t=12.62 for dryness of lesion and t=10.81 for PASI Score.

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