



CLINICAL STUDY OF BALADI YAPANA BASTI IN JARA

Anand Singh*¹ and Santosh Chavan²

¹3rd year PG Scholar, ²Professor Department of Panchakarma,
Bharati Vidyapeeth Deemed to Be University, College of Ayurveda, Pune Maharashtra, India.

***Corresponding Author: Dr. Anand Singh**

3rd year PG Scholar, Bharati Vidyapeeth Deemed to Be University, College of Ayurveda, Pune Maharashtra, India.

Article Received on 05/05/2020

Article Revised on 26/05/2020

Article Accepted on 15/06/2020

ABSTRACT

Introduction: In India, the definition of elderly is who attained the age of 60years. 104 million senior citizens in India, 53 million are female and 51 million male (2011census). 45 percent of older Indians have chronic diseases and disabilities, which account for 85% of the burden of ill – health in these. So as to combat this burning problem Yapana basti trial decided. Many Yapana Basti has been studied for the research work because *Acharya Charaka* has explained Yapana Basti as Balya, Rasayana and rejuvenating properties. So, we have selected Tritiya Baladi Yapana Basti for treating Jara. **AIM:** To check the Efficacy of Baladi Yapan Basti in Jara. **Objectives:** 1.To study the reduction in the symptoms i.e *Slatha saramansasthisandhita*, *Twak parushya* (roughness of skin) *Vepathu* (tremor), *Kasa*, *Svasa*, 2. To Study the improvement in the score of IADL (instrumental activities of daily living scale) and ADL (activities of daily living). **Methods:-** Total 30 patients were studied, fulfilled all inclusive criteria. Total seven consecutive days *Baladi Yapana basti* were given to patients. Follow up was done on 15th day and 30 day. and objective improvement assed in terms of ADL and IADL. **Conclusion:-** *Yapana Basti* reduces the symptom of *Jara* significantly.

KEYWORDS: Yapana, Basti, Jara.

INTRODUCTION

Ageing is a process of physical, psychological and social change in multidimensional aspects. Some dimensions of aging grow and develop with time while others decline. Or in other words Ageing is the progressive and generalized impairment of function resulting in the loss of adaptive response to stress and in increasing the risk of age related diseases. world population of elderly is increasing significantly.^[1]

In India, the definition of elderly is who attained the age of 60years. Their quality of life as a result is suffering and also poses burden on their family. It requires special attention in diagnosis of disease as well as their treatment.^[2]

At the same time, existing traditional anti-ageing formulations also need to be validated using evidence based medicine and proper explanation. *Panchakarma* Therapies are better solutions, they maintained the balance in vitiated *doshas*. There are group of Basti namely *Yapana Basti* which supposed to do Anti-Ageing effects.

According to the Free-radical theory, oxidative damage initiated by reactive oxygen species is a major contributor to the functional decline that is characteristic

of ageing. Oxidative stress, resulting from these free-radicals plays an important role in manifesting various disorders Reactive Oxygen Species (ROS) chemically reactive molecules containing oxygen. Small molecule antioxidants such as vitamin C, vitamin E, uric acid, and glutathione also play important roles as cellular antioxidants.

Basti, one of the five therapeutic procedures in “*Panchakarma*” is an important “Ayurvedic therapy”. It is always compared with conventional evacuation and retention enema. According to Ayurvedic principles *Basti* plays a much more vital role in the disease management than conventional enema.

CONCEPT OF JARA

The last phase of life span is considered as Jara which is described as natural & inevitable process as well as a natural disorder i.e. *Svabhavaaja*. The Balyavastha, Madhyavastha & the Vridavastha, are dominated by *Kapha*, *Pitta* & *Vata* respectively. Following are the clinical features of ageing as depicted in Ayurvedic classics by *Astangsamgrakar* Viz. *Slathasaramasthi sandhita* (Flabbiness of muscles, joints & bone), *Twakparushya* (roughness of skin), *Avanam* (bending of the body), *Vepathu* (tremor), *Kasa*, *Svasa* (cough,

dyspnea). *Shlëshmasinghranakodirana* (Increase of sputum and nasal secretion).^[5]

Acharya Sushruta has divided the *Swabhava Bala Pravritta* diseases in two groups^[6] viz. *Kalaja* and *Akalaja*.

In this way being *Swabhavika Vyadhi*, *Jara* (ageing) is also divided into two type

1. *Kalaja Jara*
2. *Akalaja Jara*

As death is a natural (*Swabhavika*) disease. *Acharya Charaka* considered them as *Swabhavo Nispratikriya* i.e. by nature they are incurable or having no treatment. *Cakrapani*, while commenting on this verse mentions that the word *Nispratikriyah* means ordinary treatment and measures have no effect on ageing.

Acharya Sushruta noted ageing under '*Swabhava Bala Pravritta*' and puts those under two kinds: *Kalaja* are those which are timely manifested and *Akalaja* are those which are untimely manifested. As far as old age (*Jara*) is concerned, the *Kalaja Jara* is one which has appeared at proper time or at chronological period *Acharya Sushruta* has counted *Vridhdhavastha* from 70 years onwards whereas *Acharya Charaka* from 60 years.

In *Sushruta Samhita* *Jara* has been explained as *Swabhavika Vyadhi* and *Ayurvedic* approach towards *Jara* helps to manage the health issues and lifestyle choices.

Many *Yapana Basti* has been studied for the research work in *Panchakarma* because *Acharya Charaka* has explained *Yapana Basti* as *Balya*, *Rasayana* and rejuvenating properties. So, we have selected *Tritiya Baladi Yapana Basti* for treating *Jara* because as we know *Basti* is one of the main procedure in *Panchakarma* for the treatment of vitiated *Vata* and also in *Jara*.

CONCEPT OF BALADI YAPANA BASTI

Ayusho Yapanam Dirgha Kala anuvartanam Kurvanti Iti Yapanam. As per this shloka, the *Basti* which prolongs the life restores the health is called as *Yapana Basti*.^[8] *Yapanam* means prolonging or supporting the life. *Yapana Basti* is otherwise defined as that which can be used for longer periods (Prolonged Use) and that which promotes longevity.^[8] *Acharya Charaka* explains the *Tritiya Baladi Yapana*.^[4]

Special Features of Yapana Basti

Acharya Charaka gives detailed description about *Yapana Basti* yogas in *Siddhi Sthan*. He mentions about 216 yogas of which 29 are original Yogas and the remaining 187 are extended yogas. Among the 29 original yogas, 3 yogas for *Anuvasana* are also mentioned. It performs both the functions viz. *Sodhana*

and *Snehana*^[4,8] which is done by *Niruha* and *Sneha Basti* respectively.

Acharya Charaka explains the general characteristics of *Yapana Basti* and the things to be avoided during the course of *Yapana Basti*.

1. It has properties to both *Rasayana* and *Shodhana*.
2. It can be utilized for healthy persons, and sick.
3. It does not require *Purvakarma*
4. It has not created *Atiyoga* and *Ayoga*
5. It is indicated in *Svastha*, *Atura* and *Vṛddha* pointing towards its preventive, curative and promotive nature.^[4]
6. Devoid of code of conducts described for *Nirūha Basti*
7. It can be administered in all the seasons at all the times and in all the age groups.

MATERIAL AND METHODS

TABLE NO. 1: *Tritiya Baladi Yapana Basti* Ingredients.

Dravyam	Quantity
Baladi Kashaya	320 ml
Honey	50 gm
Sesame Oil	30 ml
Cow's Ghee	50 ml
Jaggery	50 gm
Saindhav	10 gm
Madanphala	10 gm
Total	520

Method of Clinical Study

- Patients attending O.P.D/ I.P.D. of B.V.M.F'S Bharati Ayurved Hospital, Katraj selected for trial
- Study was open clinical trial on 30 patients.
- A particular case paper (*Dashvidha Pareeksha*, *Astavidha pareeksha*, *Sroto pareeksha*) will be designed and follow ups updated strictly.
- Consent will be taken for every patient before *Basti karma*
- *Ayurvedic* management will be kept ready, if any adverse effect occurs.
- The permission taken for clinical trial from IEC Institutional ethics committee letter number BVDU/Exam/1927/2018-19 dated 05/06/2018
- **Justification of sample size:** Since the prevalence rate fulfilling the criteria of *Jara* visiting OPD of department of *Panchakarma* of BVMF's *Ayurveda Hospital* is 2% then $N=z^2 \times P \times (I-P)/D^2$
- $1.96 \times 0.02 \times (0.96) / (0.05)^2 = 28.98$ approx 30 Sample size for this clinical trial is 30 patients
- Clinical trial were done by taking informed consent and in accordance with the Indian Council of Medical Research (ICMR) protocol or approved by an Institutional Ethical Committee.

Inclusion Criteria

- Patients between the age group of 50-70 yrs has been included

- Patients having symptoms of Jara like *Slatha saramansasthisandhita* (Flabbiness of muscles, joints & bone), *Twakaparushya* (roughness of skin), *Vepathu* (tremor), *Kasa, Svasa* (cough, dyspnea), *Shleshmasinghranakodiran* (Increase of sputum and nasal secretion has been included.)

Exclusion Criteria

- Patients having specific diseases like tuberculosis, Typhoid, Rheumatoid arthritis has not registered.
- Patients below 50 yrs and above 70 yrs has not registered for clinical trial'

Table No 2: Schedule of Administration of Drug.

	Experimental Group
No. of patients	30
Place of Study	BVMF's Ayurved Hospital and Research centre
Pre-Operative	Local external oleation and local sudation at lower abdomen and thighs
Medicine	Baladi Yapna Basti
Route	Per rectal route
Dose	520 ml
Time	10 am empty stomach
Duration	7 days
Assessment Day	1 st Day, 8 th Day,
Follow up	15 th AND 30 th days after completion of clinical trial

Clinical Assessment (Jaraha prabhav)^[5] can be done by following the classical verse indicating the symptoms Jara by visual analogue scale.

1. Shlatha saramansasthisandhita (Flabbiness of muscles, joints & bone)
2. Twak parushya (roughness of skin)
3. Vepathu (tremor)
4. Kasa, Svasa (cough, dyspnea)
5. Shleshmasinghra, nakodiran (Increase of sputum and nasal secretion)

Activities of Daily Living (ADL) and Instrumental activities of Daily Living (IADL)

ADL (Activities of Daily Living): by handbook on health care of the elderly by WHO (2000)

Standard operative procedure of Basti^[8]

Materials

- Honey 50 ml, Cow ghee 50 ml, Sesame oil 30ml, Jaggery 50 gm, Rock salt 10 gm, Madanphala seed powder 10 gm, Baladi yapan Decoction 320ml baladi decoction contains decoction of coarse powder of Bala (sida cordifolia), Atibala (abutylon indicum), Kapikacchu (mucuna prurita) and Apamarga (achyranthes aspera)
- Enema can 1000ml with enema set,
- Simple red rubber Catheter no 12.

Purvakarma

1. Examination of the patient.
2. Preparation of Basti and Add Madhu and Saindhava mix it properly, adds jaggery in that till become jelly like substance. Every time Basti Material formulations prepared fresh
3. Add Sneha sesame oil 30 ml followed by cow ghee 50 ml (unctuous material)
4. Add Kalka of Madanphala seed powder and mix (Kalka-paste).

5. At the end add Baladi decoction.

6. There is a special method of heating the Basti dravya. The vessel containing kashay should be kept first on Agni and inside this Basti dravya pätra (pätra -vessel) is to be kept and boiled i.e., it should not be heated directly.

7. Empty stomach 3 hrs before *Basti*, Short walk, evacuation of bowel & bladder, Sthanik Snehan Svedan (Kati, Adhodara, Sphik, Uru).

Pradhana Karma

Kept the patient in left lateral position, lubricate the anus and catheter with oil, administered Basti dravya 520 ml for Tiritiya Baladi Yapna Basti with the help of Enema Cane & simple rubber catheter. Tapping over the buttocks and back will be followed by lifting of legs

Paschat Karma

1. Basti Pratyagaman has observed and recorded. Rest, diet (Lunch-fresh green gram khichadi and luke warm water for whole day.
2. Patient has been advised to take complete rest without exposing direct air.

OBSERVATION

In this study the sample size was of 30 patients for final analysis. The total screened patients were 59, out of which 41 patients were enrolled in the study after they fulfilled all the inclusion criteria for the study. Out of these 41 enrolled patients 11 patients were dropped out of the study due to non-compliance and not willing to continue treatment.

The 30 subjects predominatly in 6th decade predominantly housewives having Pittavataj prakriti female having Madhyam Koshti with Atichankraman hetus received Tiritiya Baladi Yapana Basti for 7 days and follw up after 15-30th day. Results were assessed.

RESULTS

Table no 3. Showing The Effect Of Twak Parushya.

Parameter		Mean		X	% of improvement	Negative Rank	Positive Rank	Tie	Z	P
		BT	AT							
Twakparusya	BT-AT	2.47	1.13	1.33	54.05%	26	0	4	-4.6	0
	BT-1 st F/U	2.47	0.87	1.6	64.86%	26	0	4	-4.8	0
	BT-2 nd F/U	2.47	0.93	1.53	62.16%	26	0	4	-4.7	0

The mean grade of Twakparusya on BT was 2.47 which was decreased to 1.13 AT. The mean increment score was 54.05% which is significant as observed by WILCOXON test (as p value<0.05) thus it can be said that there is significant increment on Twakparusya in Jara.

Also here 64.86% improvement found in 1st follow-up on Twakparusya in Jara.

I.e. Tiritiya Baladi Yapana Basti was effective on Twakparusya in Jara..

Table no 4 showing the effect of slathasara mamsasthi sandhita in jar.

Parameter		Mean		x	% of improvement	negative rank	positive rank	Tie	z	p
		BT	AT							
Shlathasara Mamsasthi sandhita	BT-AT	1.83	0.87	0.97	52.73%	26	0	4	-4.9	0
	BT-1 st F/U	1.83	0.83	1	54.55%	26	0	4	-4.8	0
	BT-2 nd F/U	1.83	0.87	0.97	52.73%	26	0	4	-4.9	0

The mean grade of Shlathasara Mamsasthi sandhita on BT was 1.83 which was decreased to 0.87 AT. The mean increment score was 52.73% which is significant as observed by WILCOXON test (as p value<0.05) thus it can be said that there is significant increment on Shlathasara Mamsasthi sandhita in Jara.

Also here 54.55% improvement found in 1st follow-up on Shlathasara Mamsasthi sandhita in Jara.

I.e. Tiritiya Baladi Yapana Basti was effective on Shlathasara Mamsasthi sandhita in Jara.

Table no 5: Showing Effect of Tbyb On Shlemasinghranakodiran.

Parameter		Mean		x	% of improvement	Negative Rank	Positive Rank	tie	z	p
		BT	AT							
Shlemasinghranakodiran	BT-AT	0.1	0.03	0.07	65.52%	1	0	28	-1	0.32
	BT-1 st F/U	0.1	0.03	0.07	66.67%	1	0	29	-1	0.32
	BT-2 nd F/U	0.1	0.03	0.07	66.67%	1	0	29	-1	0.32

The mean grade of Shlathasara Mamsasthi sandhita on BT was 0.1 which was decreased to 0.03 AT. The mean increment score was 65.52% but it is not significant as observed by WILCOXON test (as p value>0.05) thus it

can be said that there is significant increment on shlemasinghranakodiran in Jara.

I.e. Tiritiya Baladi Yapana Basti was not effective on shlemasinghranakodiran in Jara.

Table no 6 showing EFFECT OF TRITIYA BALADI YAPANA BASTI ON VEPATHU IN JARA.

Parameter		Mean		x	% of improvement	negative rank	positive rank	Tie	z	p
		BT	AT							
VEPATHU	BT-AT	0	0	0	No change	0	0	28	0	1
	BT-1 st F/U	0	0	0	No change	0	0	28	0	1
	BT-2 nd F/U	0	0	0	No change	0	0	28	0	1

The mean grade of vepathu on BT was 0 which was same as 0.03 AT. The mean increment score was 0% which is not significant as observed by WILCOXON test (as p value>0.05) thus it can be said that there is significant increment on vepathu in Jara.

I.e. Tiritiya Baladi Yapana Basti was not effective on vepathu in Jara.

Table no 7: Showing The Effect Tbyb On Kasa Swasa.

Parameter		Mean		X	% of improvement	negative rank	positive rank	tie	Z	p
		BT	AT							
Kasa Shwasa	BT-AT	0.48	0.2	0.28	58.57%	7	0	22	-2.5	0.01
	BT-1 st F/U	0.48	0	0.48	100.00%	7	0	22	-2.6	0.01
	BT-2 nd F/U	0.48	0	0.48	100.00%	7	0	22	-2.6	0.01

The mean grade of Kasa Shwasa on BT was 0.48 which was decreased to 0.2 AT. The mean increment score was 58.57% which is significant as observed by WILCOXON test (as p value<0.05) thus it can be said that there is significant increment on Kasa Shwasa in Jara.

Also here 100% improvement found in 1st follow-up on Kasa Shwasa in Jara.

I.e. Tiritiya Baladi Yapana Basti was effective on Kasa Shwasa in Jara.

Table no 9: Showing The Effect Of Tbyb On Iadl.

Parameter		Mean		x	% of improvement	Negative Rank	Positive Rank	tie	Z	p
		BT	AT							
ADL	BT-AT	2.97	3.9	0.93	31.46%	0	28	2	-5.3	0
	BT-1 st F/U	2.97	3.97	1	33.71%	0	29	1	-5.3	0
	BT-2 nd F/U	2.97	3.97	1	33.71%	0	29	1	-5.3	0

The mean grade of ADL on BT was 2.97 which was increased to 3.9 AT. The mean increment score was 31.46% which is significant as observed by WILCOXON test (as p value<0.05) thus it can be said that there is significant increment on ADL in Jara.

Also here 33.71% improvement found in 1st follow-up on ADL in Jara.

I.e. Tiritiya Baladi Yapana Basti was effective on ADL in Jara.

Table no 9 showing the effect of TBYB on IADL.

Parameter		Mean		x	% of Improvement	Negative Rank	Positive Rank	tie	z	p
		BT	AT							
IADL	BT-AT	4.27	5.23	0.97	22.66%	0	29	1	-5.4	0
	BT-1 st F/U	4.27	5.27	1	23.44%	0	29	1	-5.3	0
	BT-2 nd F/U	4.27	5.27	1	23.44%	0	29	1	-5.3	0

The mean grade of IADL on BT was 4.27 which were increased to 5.23 AT. The mean increment score was 22.66% which is significant as observed by WILCOXON test (as p value<0.05) thus it can be said that there is significant increment on IADL in Jara.

Also here 23.44% improvement found in 1st follow-up on IADL in Jara.

I.e. Tiritiya Baladi Yapana Basti was effective on IADL in Jara.

DISCUSSION

Baladi Yapana Basti orderly nourished Rasādi Dhātus that's why showed improvement in early orderly Dhātu i.e. Rasa Dhātu nourishment for Twak pārushya.

Twak Parushya: Due to its Shodhan effect along with Rasayana effect of Baladi Yapana Basti. Srotorodh removed and there is improvement in orderly nourishment of Rasadi Dhatu. Due to Snigdha guna of Ghrita, overall Ruskahta Nasha shown in the body. Pitta dosha along with Vata dosh alleviation done by Yapana

Basti (Ghrita main Snigdha Dravaya in this Yapana basti). Vatanuloman and Pitta Shaman happened by this Basti thereby relief in the Twak Parushya.

Shlathasaramasthisandhita: The depletion of Māmsa Dhātu also supervenes among the feature of Vriddhāvasthā, Slathasāramāsthī sandhitā is also coined together with Māmsa, most probably relating the decreased locomotors functioning as an outcome of looseness in Māmsa Peśī, Snāyu & Kandarā enveloping the Sandhi. This characteristic of Saithilya in Māmsa and Asthi Sandhi is also said to occur during the predominance of Pitta Doṣa. Due to Shodhan and Dhatuprasadan by orderly nourishment by Poshak Rasa Dahtu, this Shaithilya get corrected upto certain extent'

Shleshmasinghranakodiran, Kasa Shwasa: obviously emerged from the Kaphasthāna and primarily due to Kapha Duṣhti. This makes us to considered a main role for Rasa Dhātu dushti in ageing process. Vata Anuloman and Achintya Jarahar prabhav of Baladi Yapana Basti give strength to Pranavaha Srotas thereby improvement in said symptoms upto some extent.

CONCLUSION

There was improvement trend in functional status of aged cases.

1. There was improvement in the rank after treatment with Baladi Yapan a Basti.
2. Highly significant results were observed in Shlathasaramamsathisandhita, Twakaparushya showing its Jarahar prabhav (Anti Ageing effect).
3. Baladi Yapan basti showed improvement in functions assessment of old age patients by improvement trend in ADL (Activities of daily living) and IADL (Instrumental Activities of daily living)
4. No results were found in Vepathu
5. There was no relapse of symptoms and adverse drug reaction after giving Baladi Yapan Basti

REFERENCES

1. A.B. Dey, *Handbook on Health care of the Elderly*, WHO South east Asia Singapore published by AIIMS New Dehi, 2000; 1.
2. Chavan. S. Evaluation of clinical effect of Ashwagandha (*Withania somnifera*) as a Rasayana in elderly persons by *International Ayurvedic medical Journal*, 2015; 3(7): 2041-2049.
3. Vaidya Jadavaji Trikamaji Acharya, *The Charakasamhita of Agnivesh* revised by Charaka & Dridhabala with the Ayurveda Dipika Commentary of Chakrapani datta, Sidhhi sthan, 4th Edition New Delhi, New Delhi. Edited by published Munshilal Manohar Publishers, 1981; 733.
4. Anant Damodar Athwale, *Asthang Samgrah of Vridha Vagbhata with orginal sanskrita commentary (Indu Tika) Sharaira Sthan*; 1st edition, Pune, Maharashtra published by Srimat Atreya Prakashan, 1981; 323, 113.
5. Vaidya Jadavaji Trikamaji Acharya, (1994). *Sushruta Samhita (original Sanskrit with dalhana commentary) Sutrasthan*; published by Chaukhamba Surabharati Prakashan 1st edition Bombay Maharashtra, 1994; 97.
6. Nampoothiri MR, Mahadevan L. *Principles and Practice of Vasti* 1st ed. Derisanamcope: Y. Mahadeva Iyer's Sri Sarada Ayurvedic Hospital, 2007; 101.
7. Chavan. S, Vedpathak S. April, Conceptual study of Madhutailika Basti in Akalaja Jara (Premature ageing): A Review, *Int. J. Res. Ayurveda Pharm*; 2017; 2: 32-34; <http://dx.doi.org/10.7897/2277-4343.08279>
8. Chavan S, Vedpathak S, Ghate U, Indapurkar K. February; Study Of Effect Of Madhutailika Basti (Rejuvenating Enema Containing Honey And Sesame Oil) On Fatigue Index In Premature Ageing; *World Journal Of Pharmacy And Pharmaceutical Sciences*, 2017; 7(3). DOI:10.20959/wjpps-20183-11117.