



A Role of *Narayana Taila Matra Basti* in Routine Geriatric Care

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Abstract

INTRODUCTION

Population of elderly in India is growing faster than general population. Most of the elderly persons (about 65%) become dependent on others for activities of daily living (ADL s) like bathing, dressing, feeding, continence, toiling and mobility. Most common disability among the aged persons found is locomotor disability, as 3% of them suffer from it. According to *Ayurveda*, dominant *Vata dosha* causes degeneration in all *Dhatus* at old age which results in physical disabilities. Use of *Taila* is considered best amongst all anti *Vata* drugs. *Matra Basti* with *Narayana Taila* was selected present study.

MATERIAL AND METHODS

Total 60 patients having more than 60 years of age with locomotor disabilities were registered in two groups. Group A patients were given *Matrabasti* with 40ml *Narayana Taila* every day after dinner for 45 days. Group B patients were registered only for observation. After 45 days all the patients of group A and group B were assessed for change in their locomotor disabilities.

RESULTS

Patients in group A showed reduction in their locomotor disabilities like putting on shoes (27.87%), carrying saucepan (25.49%), getting on and off toilet (24.14%) as well as turning taps on and off (20.37%). All these results were statistically significant. Improvement in activities of daily living i.e. , mobility, toileting, continence, bathing, feeding and dressing was also found. Patients in group B showed slight deterioration in their locomotor disabilities and activities of daily living, though it was not significant.

CONCLUSION

Matrabasti with *Narayana Taila* in aged persons is helpful to reduce their locomotor disabilities and improves activities of daily living.

Keywords

Elderly, locomotor disabilities, Matrabasti, Narayana Taila



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INTRODUCTION

Population of elderly in India is growing faster than general population¹. A person having age of 60 years or above is considered as 'elderly'². As per the 2001 census, the population of the elderly in India was 76.6 million as compared with 20 million in 1951. There has been a sharp increase in the number of elderly persons between 2001 and 2011 and it has been projected that by the year 2050, the number of elderly people in India would rise to about 324 million³⁻⁵. Most of the elderly persons (about 65%) become dependent on others for activities of daily living (ADL s) bathing, dressing, feeding, continence, toiling and mobility. They show lot of variation in age-related physiological decline and medical disorders. Most common disability among the aged persons found is loco motor disability as 3% of them suffer from it⁶. Maintenance of independent living is the central and core issue in geriatrics⁷. It concentrates on care rather than cure because the diseases tend to be chronic.

Ayurveda also considers old age after 60 years^{8,9}. *Vata dosha* becomes dominant at this age and causes degeneration in all *Dhatu*s. *Ayurveda* defines *Jara* (old age)

itself as *Svabhavika Vyadhi*^{10,11}. Normal functions of *Dhatu*s reduce or lost in aged persons and they become disable to perform any activity. Use of *Taila* is considered best amongst all anti *Vata* drugs. *Narayana Taila*¹² is commonly used in routine *Ayurvedic* practice. One of the routes of administration of *Taila* is *Anuvasana Basti*. Smaller dose of *Anuvasana basti* is known as *Matra Basti*¹³⁻¹⁵ which is also indicated for the aged people. It is easy to administer and person do not feel discomfort with that hence it was selected for the present study.

AIMS AND OBJECTIVES

1. To establish efficacy of *Narayana Taila Matrasti* in routine geriatric care especially on loco motor disabilities.
2. To provide simple and effective measure to the elderly which helps to reduce age related loco motor disabilities and improves activities of daily living in them.

MATERIALS AND METHODS

SELECTION OF THE PATIENTS

All the patients were selected from O.P.D. of the P.D.Patel Ayurveda hospital, nadiad, Gujarat. The patients were selected



randomly irrespective of their sex, religion, occupation, economical class etc.

INCLUSION CRITERIA

Patients above the age of 60 years with loco motor disabilities (commonest in all geriatric disabilities) were included in the present study.

EXCLUSION CRITERIA

Patients having diseases like IHD, diabetes mellitus, autoimmune diseases, skin diseases, asthma, cirrhosis of liver, renal failure, malignancy, paralysis and edema of any cause were excluded because either they were contraindicated for the *Matra Basti* or they added additional disabilities than caused by ageing.

INVESTIGATIONS

Routine laboratory investigations like Hb, T.C., D.C., E.S.R. blood sugar and urine routine- microscopic were carried out in all the patients to exclude any pathological conditions.

TREATMENT PROTOCOLS

Group A : *Matrabasti with Narayana Taila* 40ml was given to all the patients in this group. It was given just after dinner and patients were instructed to retain it for about 9 hours (3 *Yama*). The patients could not retain it for long were instructed to retain it as long as possible without stress.

Group B: In this group, the patients were registered only for observation without administering *Matrabasti*.

NUMBER OF PATIENTS: 30 patients were registered in each group.

DURATION OF THE TREATMENT: All the patients in group A were treated for 45 days in I.P.D. whereas group B patients were observed for 45 days.

ASSESSMENT: All the patients were assessed before and after the main treatment period using functional grades for activities of daily living.

FUNCTIONAL GRADES FOR ACTIVITIES OF DAILY LIVING:

Grade 1-Easily completes task as expected of an elderly person with no disability-that is, he or she may take longer than a younger adult.

Grade 2-Completes task, but with a little difficulty. The movement is continuous, but may show one or more of the elements listed below.

Grade 3-Completes task, but with much difficulty. The movement is not continuous and may show one or more of the elements listed below.

Grade 4-Unable to complete task.

SPECIFIC TASKS

Getting on and off toilet

**Grade 2:**

Reaches for support.

Comments on difficulty.

Unsteady but remedies this while sitting or standing.

Grade 3:

Continually reaches for any support.

Comments more than once on difficulty.

Unbalanced, unsteady, unsafe, raises self, and attempts process several times.

Flops down and unable to control movement, becomes anxious.

Pouring tea**Grade 2:**

May be unsteady while lifting pot but can control movement.

May spill tea once but remedies position.

Is aware of safety and when cup is full.

Grade 3:

Unsteady and cannot control movement.

Is anxious about inability.

Spills tea more than once and cannot remedy position.

Is unaware of safety and cannot anticipate actions for when cup is full.

Turning taps on and off**Grade 2:**

Has initial difficulty in turning on tap due to stiffness of tap.

Turns on and off by sustaining a continuous turn.

Anticipates action to turn off when jug is full, a little overflows.

Grade 3:

Has initial problem in reaching and grasping tap.

Makes more than one attempt, takes hand away more than once.

Unable to anticipate action when jug is full, a lot overflows.

Carrying saucepan**Grade 2:**

Lifts pan, but needs to check direction of hob once.

May need to rest pan once but can control movement.

May slosh water in pan but is aware of safety.

May need more than one attempt to settle pan on hob, not more than two.

Grade 3:

Makes more than one attempt to lift.

Unaware of direction before starting.

Needs to rest pan and shows weakness.

Has difficulty in controlling pan.

Spills water, cannot keep pan level.

Unaware of safety.

Needs several attempts to settle pan on hob.

Putting on shoes

**Grade 2:**

Makes more than two attempts to put on each shoe.

Reaches down, and lifts leg no more than twice.

Needs to pause once before finally adjusting shoe.

May be unsteady but is able to control balance.

Grade 3:

Makes more than two attempts to put on each shoe.

Reaches down, and lifts leg more than twice.

Unsteady and loses balance, needing to raise and pause before carrying on.

Leaves shoe half on and pauses before finishing.

Criteria for the assessment of overall effect of therapy:

Assessment of overall effect of the therapy will be depend on the improvement in

special tasks i.e. ,getting on and off toilet, pouring tea, turning taps on and off, carrying sauce pan and putting on shoes.

1. improvement less than 25% – no improvement

2. improvement more than 25% up to 50%- mild relief

3. improvement more than 50% up to 75%- moderate relief

4. improvement more than 75% up to 99%- marked relief

5. 100% improvement- complete relief

RESULTS AND DISCUSSION

Table-1 In group A maximum 27.87 % improvement was achieved in putting on shoes followed by 25.49% in carrying saucepan and 24.14% improvement in getting on and off toilet. Pouring of tea was improved by 22% whereas turning taps on and off was improved by 20.37%. All these results were statistically highly significant.

Table 1 Effect of Narayana Taila Matra Basti on special tasks:

Special Tasks	B.T.	A.T.	%	S.D.	S.E.	t	P
Getting on and off toilet	1.93	1.47	24.14	0.51	0.09	5.04	<0.001
Pouring tea	1.67	1.30	22.00	0.49	0.09	4.10	<0.001
Turning taps on and off	1.80	1.43	20.37	0.49	0.09	4.10	<0.001
Carrying saucepan	1.70	1.27	25.49	0.50	0.09	4.71	<0.001
Putting on shoes	2.03	1.47	27.87	0.50	0.09	6.16	<0.001

Table-2 Maximum 3.8 % improvement was found in mobility followed by 3.39 % in toileting and 2.58 % in continence. Difficulties in bathing were relieved by 1.76 %, feeding was improved by 1.2 % and

dressing was improved by 0.99 %. All these beneficial effects were also statistically significant.

Table-3 In group B patients were kept for observation. They all were assessed at the



time of registration and at the end of 45 days of study period. The observations showed that there was decrease in performing the special tasks. Pouring of tea was deteriorated by 14.58 % following by

10.17% decreased performance in putting on shoes. Turning taps on and off, carrying saucepan and getting on and off toilet was deteriorated in performance by 8.77%, 8% and 7.27% respectively.

Table 2 Effect of Narayana Taila Matra Basti on activities of daily living

Activities of Daily Living	B.T.	A.T.	%	S.D.	S.E.	t	P
Bathing	9.47	9.63	1.76	0.38	0.07	2.41	P<0.05
Dressing	9.27	9.96	0.99	0.20	0.04	2.48	P<0.01
Toileting	8.50	8.79	3.39	0.34	0.06	4.64	P<0.001
Contenance	9.03	9.27	2.58	0.38	0.07	3.34	P<0.01
Feeding	9.05	9.16	1.20	0.18	0.03	3.26	P<0.01
Mobility	8.48	8.80	3.80	0.35	0.06	5.05	P<0.001

Table 3 Deterioration in performing special tasks:

Special Tasks	B.T.	A.T.	%	S.D.	S.E.	t	P
Getting on and off toilet	1.83	1.97	7.27	0.35	0.06	2.11	>0.05
Pouring tea	1.63	1.73	6.12	0.31	0.06	1.80	>0.05
Turning taps on and off	1.90	2.07	8.77	0.38	0.07	2.41	>0.05
Carrying saucepan	1.67	1.77	6.00	0.31	0.06	1.80	>0.05
Putting on shoes	1.97	2.07	5.08	0.31	0.06	1.80	>0.05

Table-4 Maximum 1.55% deterioration was found in mobility. Feeding was deteriorated by 1.02%. toileting became more difficult by 0.47%, dressing was deteriorated by 0.65%

whereas bathing and continence was deteriorated by 0.645 each. Though this deterioration in activities of daily living was statistically insignificant.

Table 4 Deterioration in performing activities of daily living:

Activities of Daily Living	B.T.	A.T.	%	S.D.	S.E.	t	P
Bathing	9.18	9.13	0.64	0.16	0.03	2.04	P>0.05
Dressing	8.98	8.93	0.65	0.2	0.04	1.56	P>0.05
Toiliting	8.6	8.56	0.47	0.01	0.02	2.11	P>0.05
Contenance	9.13	9.08	0.64	0.16	0.03	2.04	P>0.05
Feeding	9.17	9.07	1.02	0.21	0.04	2.39	P>0.05
Mobility	8.17	8.04	1.55	0.29	0.05	2.37	P>0.05

Vata Dosha becomes dominant in *Vridhdha Avastha*. Aggravated *Vata Dosha* causes *Dhatu Kshaya* (tissue degeneration) in aged person which is mainly responsible for the decline in functional capacities. Because of tissue degeneration the risk of developing various disease increases in aged.

Taila is considered best amongst *Vata* pacifying agents. *Taila* processed with the drugs having *Vata* reducing properties can pacify aggravated *Vata* more efficiently. According to general principle of treatment, if vitiated *Dosha* is reduced in its original site, than vitiated *Dosha* all over the body



will be pacified. *Pakvashaya* is the main site of *Vata*, hence if *Vata* is treated in *Pakvashaya* than provoked *Vata* all over the body will also get remission. *Basti* is the treatment which directly acts on *Pakvashaya*. *Anuvasana Basti* is indicated in the treatment of the diseases caused by the vitiation of only *Vata Dosha*. *Matrabasti* is type of *Anuvasana Basti* which can be taken every day and in all the persons. Because of its smaller does, it does not produce any complication of *Sneha Basti*.

Comparison of both the groups shows that if *Vata Prakopa* is taking care of in aged patients by administering *Narayana Taila Matrabasti*, it can slows down the ageing process as well as further deterioration of their functional capacity. It also increases their capacity to perform specific task and helps them to improve their activities of daily living which ultimately will maintain their independency in the community.

CONCLUSION

Ageing process is promoted by *Vata Prakopa*. Pacifying vitiated *Vata* by administering *Narayana Taila Matra Basti* in aged patients helps to improve their age related decline in functional capacity. No

any adverse event of *Narayana Taila Matra Basti* was found.



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