Research Article

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EVALUATION OF THE EFFICACY OF MANYABASTI WITH NARAYANA TAILA AND SHASHTIK SHALI PINDA SWEDA IN THE MANAGEMENT OF MANYASTAMBHA WITH SPECIAL REFERENCE TO CERVICAL SPONDYLOSIS

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ABSTRACT

Because of unwholesome life style, professional stress, workload people are more susceptible for various degenerative disorders. The Cervical Spondylosis is one of the commonest degenerative condition by which the larger group of community has been affected. By considering the sign and symptoms of cervical spondylosis it can correlate with Manyastambha. There are medicinal and surgical treatment approaches to treat this condition which is often associated with many adverse effect. In Chakradatta it is elaborated that narayan tail is effective in manyastambha. Shashtik shali pinda sweda is having properties like brimhana and vatashamaka which will be effective in manyastambha. Hence the present comparative study was undertaken to assess the efficacy of manyabasti with narayana tail and shashtikshali pinda sweda in manyastambha with reference to cervical spondylosis. The 30 patients fulfilling the inclusion and exclusion criteria were randomly divided in two groups. The assessment was done before, after treatment and at follow up. The total duration was 21 days. Assessment were done by using subjective parameter as neck pain, stiffness and objective parameter as measurement of various range of cervical movements with goniometry i.e. flexion, Extension, Rt. Lateral flexion and Lt. lateral flexion. Within group comparison both procedures had shown effective results after treatment in all the parameters. The statistically significant improvement were observed in both the groups. Both procedures had shown effective results after treatment in all the parameters. Both groups are effective at follow up in rt. and lt. lateral flexion. Apart from this Shashtik group is effective at follow up in flexion and stiffness, this indicate that shashtik is more effectively relieves the stiffness and spasm of muscles. The comparison between two groups showed no significant differences on any parameter after treatment and at follow up. Thus indicates that these two procedures are effective in manyastambha. But among these two procedures shashtik shali pinda sweda is more effectively relieves the stiffness and spasm of muscles

Keywords: Manyastambha, Cervical Spondylosis, Manyabasti, Narayan tail, Shashtik shali pinda sweda.

INTRODUCTION

In present era human being is prone for numerous degenerative problems, because of unwholesome life styles, food habits and professional strain, in association with road and traffic situation. The Cervical Spondylosis is one of the commonest degenerative, neurological condition by which the major population has been affected^{1,2}. Most of the person above 40 years of age shows significant radiological changes and a major percentage among them develop symptoms. It is found that half of the population develop cervical spondylosis at the age of 50 years. By age 60, 70 % of women and 85 % of men show changes consistent with cervical spondylosis on x-ray.³⁻⁵ By considering the sign and symptoms of cervical spondylosis it can correlate with Manyastambha. The Manyastambha is a vataja nanatmaja Vyadhi. The symptoms are Ruk (pain) and Stambha (stiffness and restricted movement) in manya Pradesh (cervical region). The Vata Dosha gets vitiated and takes ashraja at manya pradesha affecting the manya siras causing stambha and ruja of neck. Hence pain at manya Pradesh and stambha of manya. The stambha is the resultant spasticity of neck muscles, which stretches and makes neck stiff.⁶⁻⁸ Because of its prevalence and unavailability of satisfactory management the particular alignment has become a challenge for health care providers. The modern treatment includes analgesics surgical procedures which is often associated with many adverse effects. Because of such problems it not only affects the social and economic

position of individual and family but also draining of national resource due to work hour lost. Manyabasti is one of the panchakarma procedures which are effective in manyastambha. Narayana tail is effective in manyastambha.⁹ Shashtik shali pindasweda is unique procedure which may improve the strength of fibrous tissue increase movement and flexibility of the joints and relives the pain.¹⁰ Hence after consideration of all these aspects manyabasti and shashtikshali pinda sweda were selected for present study.

Objectives of Study

- To evaluate the efficacy of Manyabasti with Narayana Taila in the management of Manyastambha w.s.r. to Cervical Spondylosis.
- To evaluate the efficacy of shashtikshali pinda sweda in the management of Manyastambha w.s.r. to Cervical Spondylosis.
- To evaluate the comparative efficacy of Manyastambha and shashtikshali pinda sweda in the management of Manyastambha w.s.r. to Cervical Spondylosis.

Research Methodology

Source of Collection of Data

For the present clinical study, the patients were randomly selected from the outpatient and inpatient department of Hon. Shree Annasaheb Dange Ayurvedic medical college, Shree Dhanvantri hospital and research centre, Ashta. This study conducted under the ethical clearance number

ADAMC/RW/362-B/2013 dated 5/3/2013. 30 patients who fulfil the inclusion criteria irrespective of sex, religion, economic and literary status were selected for the study.

Study Design

Diagnostic Criteria

Patients with classical sign and symptoms of manyastambha with that of cervical spondylosis i.e., Pain at nape of neck. Restricted range of neck movements and stiffness were selected for the clinical study. X-RAY cervical spine both AP and Lateral view showing changes of cervical spondylosis.

Inclusion Criteria

- Well diagnosed patients of Manyastambha (Cervical Spondylosis)
- Patients between the age group of 25 to 70 years.
- Patients fit for Manyabasti and shashtikshali pinda sweda were selected.

Exclusion Criteria

- Cervical vertebra fracture, cervical rib, Cervical canal stenosis
- Ankylosing spondylitis,
- Brachial Neuralgia,
- Congenital torticollis.
- Rheumatoid Arthritis

Investigations

- All the patients were subjected to X-RAY cervical spine both AP and Lateral view.
- Blood: BSL(R), Total leukocytes count, Differential leukocytes count, ESR, Hb
- Urine: Bile salt, Bile pigment, Albumin, Sugar

Intervention

This study was a comparative clinical study in between two procedures Manyabasti and shashtikshali pinda sweda. 30 patients were divided randomly in 2 groups based on inclusion and exclusion criteria.

Group A: In this group 15 patients were given manyabasti.

Group B: In this group 15 patients were given shashtikshali pinda sweda.

Follow up period: Follow up study was done for 14 days. Total duration: 21 days.

Procedure for Manyabasti

Purva Karma

Preparation of Mashapishti

Black gram powder was mixed with sufficient quantity of water to make thick paste (dough). It is then rolled into flat slab like structure.

Preparation of the Patient

Patient was allowed to lie down in prone position comfortably.

Pradhana Karma

Ring of black gram paste attached around the cervical region.

The oil were heated up to warmness over the water bath and poured slowly inside the ring
Its uniform temperature was maintained throughout the process by replacing warm oil.

Pashchat Karma

Oil is removed by dipping cotton and squeezing in a container, Dough were removed. The area is wiped off and cleans properly.

Procedure for Shashtika Shali Pinda Sweda

Purva Karma

Preparation of Pottali: 150 g of shashtik shali was cooked with 750 ml of milk and decoction of balamool. Two boluses were prepared out of it. Another 750 ml of milk and decoction heated in low temperature to dip the boluses for warming the pottali.

Preparation of the Patient

Patient was allowed to lie down in prone position comfortably. Abhyanga was done with tila tail to Manyapradesha.

Pradhana Karma

The warm pottalis (boluses) were applied in synchronized manner over manyapradesha.

Precaution were taken that the heat of boluses should be bearable

The temperature of bolus was maintained throughout procedure by alternate exchange of heated pottali.

Pashchat Karma

The paste remained over the body were scrapped off. The area wiped off and cleans properly.

Subjective parameters

- Neck pain
- Stiffness

Objective parameters

Measurement of various ranges of cervical movements with goniometry

- Flexion
- Extension
- Rt. Lateral flexion
- Lt. lateral flexion

Grading

Subjective parameters

Table 1: Grading for the parameter neck pain

Grade 1	No pain
Grade 2	Mild pain occasional / intermittent, relived on rest
Grade 3	Moderate pain frequent, pain relived after taking pain killers
Grade 4	Severe pain, not tolerable, not relived fully even after taking pain killers.

Table 2: Grading for the parameter neck stiffness

Grade 1	0 to 25 % restriction of movements.
Grade 2	25 % to 50 % restriction of movements.
Grade 3	50 % to 75 % restriction of movements.
Grade 4	75 % to 100 % restriction of movements.

Objective parameters

The ranges of movements of the cervical spine were the objective parameters selected for the present study. This range of movement of the neck was measured with the help of a goniometry as before, after and at follow-up. The readings were taken in degrees directly and observations were noted.

RESULTS

Table 3: Age wise distribution of the patients

Age in Years	Group A		Group B		Total	
	No	%	No	%	No	%
20-30	2	13.3	3	20	5	16.7
31-40	3	20	2	13.3	5	16.7
41-50	2	13.3	5	33.3	7	23.3
51-60	3	20	2	13.3	5	16.7
61-70	5	33.3	3	20	8	26.7

Table 4: Distributions of the patients as per sex

Sex	Group A		Group B		Total	
	No	%	No	%	No	%
Male	8	53.33	9	60.0	17	56.66
Female	7	46.66	6	40.0	13	43.33

Table 5: Distributions of the patients as per Occupational status

Occupation	Group A		Group B		Total	
	No	%	No	%	No	%
Sedentary	3	20	5	33.33	8	26.66
Active	5	33.33	6	40	11	36.66
Labour	7	46.66	4	26.66	11	36.66

Table 6: Distributions of the patients as per Economical status

Economic status	Group A		Group B		Total	
	No	%	No	%	No	%
Poor	4	26.66	3	20	7	23.34
Middle	8	53.33	7	46.66	15	50
Rich	3	20	5	33.33	8	26.66

Table 7: Prakrutiwise distributions of the patients

Prakruti	Group A		Group B		Total	
	No	%	No	%	No	%
Kaphaja	3	20.0	2	13.3	5	16.7
Pittaja	4	26.7	5	33.3	9	30.0
Vataja	8	53.3	8	53.3	16	53.3

Table 8: Distributions of the patients as per Sara

Sara	Group A		Group B		Total	
	No	%	No	%	No	%
Pravara	3	20	1	6.7	4	13.3
Madhyama	7	46.7	9	60.0	16	53.3
Avara	5	33.3	5	33.3	10	33.3

Table 9: Distributions of the patients as per samhanana

Samahnana	Group A		Group B		Total	
	No	%	No	%	No	%
Pravara	3	20	1	6.66	4	13.33
Madhyama	8	53.33	9	60	17	56.66
Avara	4	26.66	5	33.33	9	30

Table 10: Distributions of the patients as per Satva

Satva	Group A		Group B		Total	
	No	%	No	%	No	%
Pravara	3	20.0	3	20.0	6	20.0
Madhyama	7	46.66	9	60.0	16	53.33
Avara	5	33.33	3	20.0	8	26.66

Table 11: Distributions of the patients as per Satmya

Satmya	Group A		Group B		Total	
	No	%	No	%	No	%
Ekarasa	2	13.3	1	6.7	3	10.0
Sarvarasa	5	33.3	7	46.7	12	40.0
Snigdhasatmya	3	20	4	26.7	7	23.3
Rukshasatmya	5	33.3	3	20.0	8	26.7

Table 12: Distributions of the patients as per Pramana

Pramana	Group A		Group B		Total	
	No	%	No	%	No	%
Pravara	2	13.3	1	6.7	3	10.0
Madhyama	7	46.3	13	86.7	20	66.7
Avara	6	40	1	6.7	7	23.3

Table 13: Distributions of the patients as per Ahara Shakti

Ahara shakti	Group A		Group B		Total	
	No	%	No	%	No	%
Pravara	3	20 %	1	6.7 %	4	13.3 %
Madhyama	4	26.7 %	11	73.3 %	15	50.0 %
Madhyama	8	53.3 %	3	20.0 %	11	36.7 %

Table 14: Distributions of the patients as per Vyayama Shakti

Vyayama shakti	Group A		Group B		Total	
	No	%	No	%	No	%
Pravara	1	6.7	3	20.0	4	13.3
Madhyama	8	53.3	6	40.0	14	46.7
Avara	6	40.0	6	40.0	12	40.0

Table 15: Distribution of patients as per duration of illness

Duration in Months	Group A		Group B		Total	
	No	%	No	%	No	%
<6	5	33.3	2	13.3	7	23.3
6-12	5	33.3	6	40.0	11	36.7
12-24	4	26.7	5	33.3	9	30.0
>24	1	6.7	2	13.3	3	10.0

Table 16: Distributions of the patients as per Mode of onset

Mode of Onset	Group A		Group B		Total	
	No	%	No	%	No	%
Chronic	7	46.7	10	66.7	17	56.7
Insidious	7	46.7	4	26.7	11	36.7
Acute	1	6.7	1	6.7	2	6.7

Statistical Analysis

The analysis was done with a non parametric Kruskal Wallis test for between group and Wilcoxon signed rank test for within group.

Flexion

Within group changes

Table 17: Statistical analysis of within group changes in Manyabasti

Flexion	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.42	0.001
Follow up- Before treatment	-3.41	0.001
Follow up- After treatment	-1.7	0.09

Table 18: Statistical analysis of within group changes in Shashtik shali pinda sweda

Flexion	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.417	0.001
Follow up- Before treatment	-3.41	0.001
Follow up- After treatment	-2.716	0.007

Between Groups

Table 19: Statistical analysis between two groups for flexion

Flexion	Chi- Square	Df	Asymp.sig.
Before treatment	.210	1	.646
After treatment	.191	1	.662
Follow up	.270	1	.603

Extension

Within group changes

Table 20: Statistical analysis of within group changes in Manyabasti

Extension	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.297	0.001
Follow up- Before treatment	-3.411	0.001
Follow up- After treatment	-1.64	0.101

Table 21: Statistical analysis of within group changes in Shashtik shali pinda sweda

Extension	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.413	0.001
Follow up- Before treatment	-3.418	0.001
Follow up- After treatment	-0.955	0.339

Between Groups

Table 22: Statistical analysis between two groups for extension

Extension	Chi-Square	Df	Asymp.sig.
Before treatment	.004	1	.948
After treatment	9.895	1	.002
Follow up	11.551	1	.001

RT. Lateral Flexion

Within group changes

Table 23: Statistical analysis of within group changes in Manyabasti

RT. Lateral Flexion	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.42	0.001
Follow up- Before treatment	-3.417	0.001
Follow up- After treatment	-3.195	0.001

Table 24: Statistical analysis of within group changes in Shashtik shali pinda sweda

RT. Lateral Flexion	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.409	0.001
Follow up- Before treatment	-3.417	0.001
Follow up- After treatment	-2.615	0.009

Between Groups

Table 25: Statistical analysis between two groups for Rt. lateral flexion

RT. Lateral Flexion	Chi-Square	Df	Asymp.sig. (2 tailed) P
Before treatment	6.612	1	.010
After treatment	0.016	1	.899
Follow up	2.009	1	.156

Lt. Lateral Flexion

Within group changes

Table 26: Statistical analysis of within group changes in Manyabasti

LT. Lateral Flexion	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.415	0.001
Follow up- Before treatment	-3.411	0.001
Follow up- After treatment	-2.032	0.042

Table 27: Statistical analysis of within group changes in Shashtik shali pinda sweda

LT. Lateral Flexion	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.182	0.001
Follow up- Before treatment	-3.413	0.001
Follow up- After treatment	-3.115	0.002

Between Groups

Table 28: Statistical analysis between two groups for Lt. Lateral flexion

LT. Lateral Flexion	Chi- Square	Df	Asymp.sig.
Before treatment	1.443	1	.230
After treatment	10.212	1	.001
Follow up	10.480	1	.001

Pain scores

Within group changes

Table 29: Statistical analysis of within group changes in Manyabasti

Pain	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.477	0.001
Follow up- Before treatment	-3.482	0.001
Follow up- After treatment	-1.414	0.157

Table 30: Statistical analysis of within group changes in Shashtik shali pinda sweda

Pain	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.453	0.001
Follow up- Before treatment	-3.453	0.001
Follow up- After treatment	-1.414	0.157

Between Group

Table 31: Statistical analysis between two groups for pain score

Pain	Chi- Square	Df	Asymp.sig.
Before treatment	0.067	1	.796
After treatment	0.000	1	.983
Follow up	0.002	1	.996

Stiffness

Within group changes

Table 32: Statistical analysis of within group changes in Manyabasti

Stiffness	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-3.0	0.003
Follow up- Before treatment	-3.16	0.002
Follow up- After treatment	-1.0	0.32

Table 33: Statistical analysis of within group changes in Shashtik shali pinda sweda

Stiffness	Z	Asymp.sig.(2 tailed) P value
After-Before treatment	-2.887	0.004
Follow up- Before treatment	-3.176	0.001
Follow up- After treatment	-2.45	0.014

Between Group

Table 34: Statistical analysis between two groups for stiffness

Stiffness	Chi-Square	Df	Asymp.sig. (2 tailed) P value
Before treatment	1.445	1	.229
After treatment	0.701	1	.402
Follow up	0.337	1	.562

Within group comparison

Flexion

The significant improvement noted in flexion among both the groups after treatment ($p = 0.001$) and at follow up ($p = 0.001$), in comparison with before treatment. Also the shashtik group shown significant improvement in flexion at follow up in comparison with after treatment ($p = 0.007$).

Extension

The significant improvement noted in extension among both the groups after treatment ($p = 0.001$) and at follow up ($p = 0.001$), in comparison with before treatment. Both the groups shown no significant improvement in extension at follow up in comparison with after treatment ($M, p = 0.101$ and. $SSP p = 0.339$).

Rt. Lateral Flexion

The significant improvement noted in right lateral flexion among both the groups after treatment ($p = 0.001$) and at follow up ($p = 0.001$), in comparison with before treatment. Both the groups shown significant improvement in right lateral flexion at follow up in comparison with after treatment ($M, p = 0.001$ and. $SSP p = 0.009$).

Lt. Lateral Flexion

The significant improvement noted in Lt. lateral flexion among both the groups after treatment ($p = 0.001$) and at follow up ($p = 0.001$), in comparison with before treatment. Both the groups shown significant improvement in Lt. lateral flexion at follow up in comparison with after treatment ($M, p = 0.042$ and. $SSP p = 0.002$).

Pain scores

The significant decrease noted in pain score among both the groups after treatment ($p = 0.001$) and at follow up ($p = 0.001$), in comparison with before treatment. Both the groups shown no significant decrease in pain score at follow up in comparison with after treatment ($M, p = 0.157$ and. $SSP p = 0.157$).

Stiffness

The significant improvement noted in stiffness among both the groups after treatment ($M, p = 0.003$, $SSP, p = 0.004$) and at follow up ($M p = 0.002$, $SSP p = 0.001$), in comparison with before treatment. Also the shashtik group shown significant improvement in stiffness at follow up in comparison with after treatment ($p = 0.014$).

In Between Group Comparisons

Kruskal Wallis test showed no significant differences between groups on any parameter after treatment and at follow up. Thus indicating that the both procedures are effective.

DISCUSSION

Manyastambha w.s.r. to cervical spondylosis, is a degenerative disorder by which a larger population get affected in present era. This disorder influences the socio-economic condition of person and family. It also damage the national resource due to work hour lost. Manyabasti is a procedure in which the warmed oil poured over manyapradesh (nape of neck). Its uniform temperature was maintained throughout the process by replacing warm oil. Shashtika shali pinda sweda is a procedure in which pottali (bolus) is prepared out of shahtika shali, milk and balamoola decoction. The bolus is made warm in heated milk and decoction then applied over the manyapradasha. Due to unwholesome lifestyle and food habits this disorder is affecting almost all the age groups. Even though this is degenerative disorder, not only labours group but also the people who are having sedentary occupation also get affected. In consideration with prakruti the vataja prakruti person are more prone to this (53.3 %). In accordance with Sara, samhanan, satva, satmya, pramana, ahara shakti and vyayama shakti madhyama (medium) group shown majority. Among the 30 patients selected, 7 were having symptoms since within 6 months (23.3 %), 11 since 6-12 months (36.7 %), 9 since 12-24 months (30 %) and 3 since more than 24 months (10 %). Among the 30 patients selected, mode of onset seen was in 17 patients chronic (56.7 %), 11 patients insidious (36.7 %) and in 2 patients it was acute (6.7 %). Within group comparison both procedures had shown effective results after treatment in all the parameters. Both groups were significant in flexion after

treatment and at follow up, in comparison with before treatment. Only the shashtik group had shown significant improvement in flexion at follow up in comparison with after treatment. The significant improvement was noted in extension among both the groups after treatment and at follow up, in comparison with before treatment. There was no significant improvement in extension at follow up in comparison with after treatment among both the groups. In rt. lateral flexion and Lt. lateral flexion the significant improvement noted in both the groups after treatment and at follow up, in comparison with before treatment. Both the groups had shown significant improvement in rt. lateral flexion and Lt. lateral flexion at follow up in comparison with after treatment. Both groups had shown a significant decrease in pain score after treatment and at follow up, in comparison with before treatment. But there was no significant decrease in pain score at follow up in comparison with after treatment. The significant improvement noted in stiffness among both the groups after treatment and at follow up, in comparison with before treatment; also the shashtik group shown significant improvement in stiffness at follow up in comparison with after treatment. Thus both the groups are effective at follow up in rt. and Lt. lateral flexion. Apart from this Shashtik group is effective at follow up in flexion and stiffness, this indicate that shashtik is more effectively relieves the stiffness and spasm of muscles. Whereas in between group comparisons, kruskal wallis test had not shown significant differences between groups on any parameter after treatment and at follow up. Thus indicating that both procedures are effective.

Probable mode of Action

The vata dosha get vitiated in Manyastambha, Narayana tail is vatashamak, Brimhana by which it pacifies the vata and strengthen the tissues. Shashtika shali pinda sweda consists of Shali, Milk, Balamool, these all are the brimhana vatahara, and balya. Hence pacifies the vata dosha, nourishes and strengthens the tissues. Consequent application of therapeutic heat causes vasodilatation, because of which the blood circulation improves, results in removal of catabolic waste such as lactic acid. As the blood circulation improves the anabolism increases as tissues receives the nutrients and oxygen promptly. Because of this the muscles supporting the cervical spine

get strengthen. So pressure gradient on cervical spine get reduced. Thermal and pain signals are located in skin parallel to each other. Among these two sensations the stronger one is received, which is thermal (heat) sensation and pain sensation ceases.

CONCLUSION

Manyastambha (cervical spondylosis) is affected to larger population. Manyabasti and Shashtik shali pinda sweda are effective treatment procedures for manyastambha i.e. cervical spondylosis. Among these two procedures shashtik shali pinda sweda is more effectively relieves the stiffness and spasm of muscles.

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