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COMPARATIVE ANALYSIS OF EFFECT OF PATRA PINDA SWEDA AND NADI SWEDA IN THE MANAGEMENT OF MANYASTAMBHA

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ABSTRACT

The development of science greatly depends upon experimentation to reveal the mysteries of nature and to confirm the previous innovations. In the field of research, though experimental studies provide better understanding regarding the efficacy, mode and site of action of the drugs, but the evaluation of the drug is incomplete unless and until they are tried clinically. Clinical study is the essence of any research work. It reveals the promises and pitfalls of any hypothesis. It further rectifies the hypothesis and improves its practical applicability. Acharyas have emphasized on the need for a physician to be well versed in the theory as well as the practical. Thus, it is mandatory for a good physician to be well versed in both, the theory and the practical. The major aim of treatment of this disease is to provide relief from pain and discomfort, prevention of further disease progress, loss of joint function, maintenance of productive and active life without hampering of routine activities as they are chiefly affected. Cervical Spondylosis has a great impact on social, occupational, and other functioning areas of the individual. The modern medical science is still not having a definite curative treatment for this disease. Although, Analgesics, NSAIDs and Corticosteroids are being used for symptomatic management but their role in curing the disease is very limited rather the patients get addicted for the particular drug. In such a scenario, there is a need for the efficient management of Cervical Spondylosis in a natural way with fewer / no side effects and less cost. In this study, the clinical trial was carried out on *Manyastambha* (Cervical Spondylosis) and an attempt had been made to manage it through Ayurveda with the help of Patra Pinda Sweda & Nadi Sweda.

Key Words: *Manyastambha*, Patra Pind Sweda, Nadi Sweda, Cervical spondylosis.

INTRODUCTION

The first section i.e. introduction deals with a brief study about present research with aims and objective of this research.

The second section deals with Conceptual Study where an attempt has been made to understand the *Manyastambha* from both Ayurvedic & Modern point of view. *Manyastambha* is a condition in which Dhatu *Kshaya* takes place which in turn leads to Vata *Prakopa*. The vitiated Vata chiefly affects *Asthi* Dhatu due to *Ashrya- Ashrayee* Bhava and diminishes the Sneha due to its Ruksha Guna, which leads to *Khavaigunya* in *Asthidhatu* where Vata gets accumulated and causes *Kshaya* of *Asthi* Dhatu resulting in *Asthigata* Vata. On the other hand, Meda *Dhatwagnimandya* leads to Ama Meda Vriddhi, which gradually causes the *Avarana* of Vyana Vayu and this *Avarana* leads to impaired nutrition and Vata *Prakopa*, ultimately resulting in *Kshaya* of its later Dhatu i.e. *Asthi* & *Majja* Dhatu. Thus, *Samprapti* of *Asthigata* Vata can be explained in two ways viz. Dhatu *Kshaya* Janya and Marga *Avarana* Janya. Further in disease contrive, detailed description regarding Nidana

Panchapanchaka of *Manyastambha* is elaborated. Specific Nidana for *Manyastambha* has been described in classics, as well as being a Vata *Vyadhi*, General Vata *Vyadhi Nidanas* are also explained in detail. On the basis of vitiation of Doshas by Nidana Sevana (causative factors), a *Samprapti* of *Manyastambha* was formulated which was showing resemblance to pathogenesis of Cervical Spondylosis or Wry Neck. Further, a general line of treatment for the disease was explained from both Ayurvedic & modern point of view. Also, detailed descriptions of Patra Pinda *Swedana* Karma and Nadi *Swedan* Karma evaluated and an attempt was made to explain their probable mode of action for better understanding of the therapy. The third section deals with the brief review of drugs, used for Patra Pinda Sweda (PPS), and Nadi Sweda (NS). This part deals with Ayurvedic pharmacodynamics along with their pharmacological properties. Majority of the ingredients of Patra Pinda Sweda (PPS), and Nadi Sweda (NS) are having Ushna Veerya, *Katu Vipaka* & Vatakapha shamak property and also exhibit Anti-inflammatory, Analgesic, Antioxidant, Antistress, Antirheumatic, Antiarthritic and Immunomodulatory effects. Drugs used for both Sweda have *Vednasthapana* & *Shothahara* Properties.

The fourth section explores the clinical study with description of aims & objectives, materials & methods, criteria for selection of patients, diagnostic criteria, subjective & objective criteria for assessment of results, general observations & effect of therapy. Total 40 patients were registered in the study, which were divided into two groups. Group A (PPS) patients (n=20) were treated with Patra Pinda Sweda while in

Group B (NS) Group, 20 patients were administered Nadi *Swedan* out of which, all patients completed the treatment.

AIMS & OBJECTIVES OF THE STUDY:

- To study the pathogenesis of *Manyastambha* w. s. r. to Cervical Spondylosis.
- To evaluate and compare the effect of Patra Pinda Sweda (PPS) and Nadi Sweda (NS) with Rasna *Shunthayadi Qwatha* in the management of *Manyastambha* w. s. r. to Cervical Spondylosis.

HYPOTHESIS:

Null Hypothesis: Patra Pinda Sweda and Nadi Sweda are equally effective in the management of *Manyastambha* w. s. r. to Cervical Spondylosis.

Alternative Hypothesis: Patra Pinda Sweda are more effective than Nadi Sweda in the management of *Manyastambha* w. s. r. to Cervical Spondylosis.

MATERIAL AND METHODS

Selection of patients:

For the purpose of clinical trial, 40 clinically diagnosed patients of *Manyastambha* w. s. r. to Cervical Spondylosis, fulfilling the inclusion criteria and willing to participate in the clinical trial were selected irrespective of their sex, caste, religion from OPD as well as an IPD of SDDAMCH, Ranchi, Jharkhand, India. For diagnosis, detailed medical history was taken and physical examination was done according to both Ayurvedic and modern clinical methods. All the patients were studied for their demographic profile including age, sex, address, occupation, education, socio- economic status, marital status, addictions, dietary habits, etc. The detailed proforma was prepared to study all these conditions of patients.

Inclusion Criteria: -

- Age: 20 - 60 years
- Patients having clinical features of *Manyastambha* as well as clinical features of cervical spondylosis and *Wrys* neck was also be considered.

Exclusion Criteria: -

- Patients below the age of 20 and above the age of 60 years were excluded from the study.
- Patients having associated conditions like Rheumatoid Arthritis, Ankylosing Spondylitis etc. were excluded.
- Patient having serious illness like DM, HTN, Asthma etc. were excluded.
- Patients having pregnancy were also excluded from this trial.

Group Design:

Patients were divided into two groups:

Patra Pinda Sweda Group (PPS group): In this group 20 patients of *Manyastambha* (Cervical Spondylosis or *Wrys* neck) were treated with Patra Pinda Sweda for 7 days.

Nadi Sweda Group (NS Group): In this group 20 patients of *Manyastambha* (Cervical Spondylosis or *Wrys* neck) were treated with Nadi Sweda for 7 days with Rasna *Sunthayadi* Kashaya.

LABORATORY & RADIOLOGICAL INVESTIGATIONS: -

- *Hematological* investigations like Hb, T.L.C., D.L.C., E.S.R.
- Bio-chemical examination: Blood Sugar (R.B.S.), Lipid profile (if required)

- Routine & Microscopic examination of urine (if required)
- X-ray of Cervical Spine (AP & Lateral view) □

All the investigations were carried out before & after the treatment.

Subjective Criteria:

The improvement was assessed on the basis of relief found in the cardinal symptoms of the disease. To assess the effect of therapy objectively, all the symptoms were assessed on scoring pattern depending upon their severity as elaborated below:

Pain (*Shoola*):

Sr. N.	Symptoms	Grade
1	No Pain	0
2	Pain in the neck, mild aggravates with movement	1
3	Pain in neck, severe aggravates with movement	2
4	Pain mild or severe with radiation to arm	3
5	Pain in neck, radiation and disturbed the sleep	4

Stiffness (*Sandhigraha*):

Sr. N.	Symptoms	Grade
1	No Stiffness	0
2	Stiffness; no medication	1
3	Stiffness, relieved by external application	2
4	Stiffness, relieved by oral medication	3
5	Stiffness, not responded by medicine	4

Headache:

Sr. N.	Symptoms	Grade
1	No headache	0
2	Mild pain occasionally	1
3	Headache once in a week	2
4	Headache more than 5 times in a week	3
5	Daily severe headache	4

Vertigo (*Bhrama*):

Sr. N.	Symptoms	Grade
1	No Reeling of head/ *Bhrama*	0
2	Sometimes feeling of reeling in head/ *Bhrama*	1
3	Feeling of reeling head/ *Bhrama* < 3 times a day	2
4	Feeling of reeling head/ *Bhrama* > 3 times a day	3
5	Frequently feeling of reeling head, change of posture causes the severe problem	4

Tingling Sensation:

Sr. N.	Symptoms	Grade
1	Absent	0
2	Occasionally	1

3	Up to 1hr	2
4	Up to 2hr	3
5	More than 3hr	4

Tenderness (*Sparshasahyata*):

Sr. N.	Symptoms	Grade
1	No tenderness	0
2	Subjective experience of tenderness	1
3	Wincing of face on pressure	2
4	Wincing of face and withdrawal of the affected part on pressure	3
5	Resist to touch	4

STATISTICAL ANALYSIS

The information gathered, on the basis of observation made about various parameters, was subjected to statistical analysis in terms of Mean, Standard Deviation (SD) and Standard Error (SE).

Paired-'t' test for objective criteria to analyse the effect of individual therapy in both the groups. To compare the effect of therapies of two groups, Mann Whitney test was carried for subjective criteria and Unpaired-'t' test for objective criteria.

The obtained results were interpreted as.

Insignificant $p > 0.05$ Significant $p \leq 0.05$

Highly significant $p \leq 0.001$

Criteria for the Assessment of the total effect of the therapy:

- Total effect of the therapy was assessed considering overall improvement in signs and symptoms as well as radiological examination. After the treatment the total effect was recorded in following categories:
- Complete remission – 100% relief in signs and symptoms as well as normal X-ray findings was considered as complete remission.
- Markedly improved – Patients showing improvement up to 50% to 99% in the signs and symptoms was taken as markedly improved.
- Improved – Improvement below 50% up to 25% was taken as improved.
- Unchanged – Less than 25% relief was considered as unchanged.

OBSERVATION

Among observations, it was found that maximum patients i.e. 45% of the patients belonged to the age group of 41-50 years, 62.50% of the patients were females, 80% were Hindus, 40%

were housewives, 77.50% patients were married, 62.50% belonged to middle class and 70% of the patients were coming from urban area. 25% of the patients were having chronicity of 2-5 years, trauma was found as precipitating factor in 37.50% of the patients. Maximum i.e. 42.50% of patients were habituated to *Vishamashana*, 50% patients were addicted to tea, 57.05% reported history of disturbed sleep, 40% patients were habituated to have day- sleep on daily basis, 45% of the patients were having regular bowel habits. Maximum patients i.e. 37.50% were of Vata Kapha Prakriti, 65% were having *Rajasik* Manasa Prakriti, Maximum patients were having Madhyama Sara, *Samhanana*, Satva, *Satmya*, Pramana & *Vyayama* Shakti i.e. 52.50%, 77.50%, 67.50%, 72.50%, 70%, 77.50% respectively; 57.50% patients were having Manda Agni and 72.50% patients were found to have Madhyama *Koshtha*.

Review of *Aharaja* Nidana showed that 40% of the patients were having Ruksha, and 37.50% having *Sheeta* Guna and 62.50% were found to have *Tikta* Rasa dominant diet; 62.50% were indulged in *Vishamashana*. In *Viharaja* Nidana, 67.50% were having habit of *Diwaswapna*, 45% patients reported history of Veg *Sandharana*; *Ratrijagarana* & *Bharaharanaas* Nidana was observed in 30% & 22.50% of the patients respectively. In Manasika Nidana, 27.50% patients reported to have Chinta as one of the causes. Chief complaints wise distribution showed that100% of the patients were having pain, which was of radiating nature in 82.86% of the patients. 92.50% of patients reported Stiffness. Tingling sensation was present in 37.50% whereas Headache was observed in 50% of patients. Vertigo was reported by 55% of the patients.

In PPS group, Patients were treated with Ark, *Nirgundi*, *Shigru*, Eranda and Imali leaves. Results obtained were as: Pain, Tenderness, Headache, Vertigo were relieved by 71.79%, 87.50%, 71.43% and 83.33% respectively which were highly Significant. There was a very mild increase in values of Blood Sugar Level (6.01%) and which was statistically insignificant. There was 77.78% improvement noticed in flexion which was highly significant while 80% improvement noticed in extension which was significant. PPS group shows insignificant results on *haematological* investigations. Overall effect of therapy showed moderate improvement in 40% of the patients and marked improvement in 35 % of the patients. 05% of the patients remained unchanged, 05% patient got complete remission.

In NS Group, patients were treated with Nadi *Swedana* with Rasna *Sunthayadi Kshaya*. After completion of therapy, Pain (66.67%), stiffness (62.50%) and tingling (77.14%) were markedly improved which were highly significant whereas tenderness (27.59%) and headache (45.83%) were improved which were significant. 31.18% improvement was found in vertigo that is statistically insignificant and biochemical parameters like Random Blood Sugar (RBS) showed very minor elevation i.e. 3.17%, which was statistically insignificant (>0.05). There was 61.54% improvement noticed in flexion which was statistically significant while 69.23% improvement noticed in extension which was highly significant.

Overall effect of therapy showed moderate improvement in 55% of the patients and marked improvement in 35% of the patients. 10% of the patients remained unchanged and complete cure was not reported by any of the patients. On comparing both the groups, overall effect of therapy in PPS Group showed better results than NS Group But the difference in effect of therapies was found Nonsignificant statistically in all the parameters except in muscle power

at shoulder level (Shoulder extension & adduction), where PPS group showed better results. The fifth section entitled as discussion where an attempt to make fruitful discussion has been done to give the possible Scientific reasons to explain and interpret the findings of the study to correlate the same with their probable causes. This section also includes probable mode of action of Patra Pinda Sweda and Nadi Sweda.

In the sixth section, conclusions, drawn on the basis of the study, have been presented.

On the basis of pathogenesis involved & symptomatic resemblance, it can be concluded that Cervical Spondylosis or Wry neck can be co-related with *Manyastambha*.

On the basis of this study, there were many leading causes directly or indirectly responsible for the occurrence of *Manyastambha*. These causes were generally contributed by inappropriate diet, improper lifestyle and stressful working environment. Therapeutically, treatment protocols in both the groups (Patra Pinda Sweda Group as Shamana Therapy; Nadi Sweda Group as Shamana Therapy) provided symptomatic relief considerably. However, PP Group was found to be relatively more effective in the management of majority of the symptoms.

Though, there was minimal deterioration in the improved quality of life & symptoms during the follow up study in both the groups, comparatively higher recurrence rate was found in PPS Group i.e. those treated with Patra Pinda Sweda. Patra Pinda Sweda provided fast relief but the effect produced, lasted for shorter duration (few days or weeks) which indicates the higher recurrence rate in this group. On the basis of trial conducted & results obtained, it can be concluded that for the management of acute cases of Cervical Spondylosis, Patra Pinda Sweda can be incorporated as the treatment of choice and to prolong the effect produced. On the basis of results obtained, it was seen that treatment group with Patra Pinda Sweda combination was more efficient when compared to NS group. Therefore, Null hypothesis is rejected and Alternate hypothesis is accepted i.e. “Patra Pinda Sweda is more effective than Nadi Sweda in the management of *Manyastmbha*”.

CONCLUSIONS

Cervical Spondylosis continues to be one of the leading causes of absence from work or may hamper the work output severely. This may not only affect the individual personally but also could be a setback for the whole nation. Importance should be given to healthy lifestyle, proper dietary habits, yoga and specific exercises for prevention of the disease.

This study was conducted on a limited number of cases with limited duration. To make the derived conclusions more concrete study should be conducted on a larger sample size with a greater period of follow up. There is a need to make such studies more conclusive by incorporating more sophisticated and specific investigations like Magnetic Resonance Imaging (MRI) scanning of Cervical Spine before & after the treatment so that the subjective & objective changes brought about by the treatment regimen be *analysed* more finely, regarding the effect produced on the structural deformity. Awareness programs should be *initialised* so as to create more public awareness about management of Cervical Spondylosis through Ayurveda. The disease progression could be checked if the patients visit Ayurveda physicians at an early stage leading to a better prognosis through earlier diagnosis. Public awareness should be

created for Ayurveda as most of the patients enrolled in this study had earlier treatment history. If such awareness is created, there are chances of better prognosis owing to earlier diagnosis.

REFERENCES

1. Surendran E, Panchakarma, A guide to treatment procedure in ayurveda,1st Edition, Kottakalam, Vaidyaratnam P.S. Varier Ayurveda College, 2006
2. Wang et al. The incidence of cervical spondylosis decreases with aging in the elderly, and increases with aging in the young and adult population: a hospitalbased clinical analysis. Clinical Interventions in Aging 2016:11.
3. Trikamji Yadavji Acharya. Agniveshakrita Charaka Samhita,Chakrapani Commentary, Sutra sthan, Chapter 20, Maharoga adhyaya, Verse no.11, Varanasi: Chaukhambha Surbharti Prakashan; Reprint 2011. p. 113.
4. Trikamji Yadavji Acharya. Agniveshakrita Charaka Samhita,Chakrapani Commentary, Chikitsasthan, Chapter 28, Vatavyadhi chikitsa, Verse no. 37, Varanasi: Chaukhambha Surbharti Prakashan; Reprint 2011. p. 618.
5. Kasper, Fauci et al. Harrison's Principle of Internal Medicine, 19th edition, McGraw Hill; 2015. p.122.
6. Sudhir singh et al. Risk factors in cervical spondylosis, journal of clinical orthopaedics and trauma; December 2014, Volume 5, Issue 4, Pages 221–226.
7. Shastri Ambika Dutt. Sushruta Samhita by Maharishi Sushruta, Nidana sthana, Chapter 1, Vatavyadhi nidana, verse no. 67, Varanasi: Chaukhambha Sanskrit Sansthan; Reprint 2007. p. 234.
8. Charaka Samhita of Agnivesh, revised by Charaka and Dradhabala with AyurvedaDipika Commentary by Cakrapanidatta and with Vidyotini hindi commentary by pt. Kashinath shastri, eidited by Dr.Gangasahaya pandey, Varanasi, Chaukambha Sanskrit Academy,reprint edition 2012, part 1, Sutra Sthana 14/41, page no 203