

Study To Evaluate Clinical Efficacy of Panchatikta Kshira Kala Basti In Cervical Spondylitis

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Abstract

Ayurveda, one of the world's oldest medical sciences, provides a comprehensive understanding of life processes, health, disease, and their management based on its unique principles and methods. While modern medicine offers a variety of medical and surgical treatments, none have proven fully effective for cervical spondylosis, providing only symptomatic relief. The adverse effects of pain relievers such as NSAIDs and steroids, as well as surgical procedures, have led to a renewed interest in alternative medical systems like Ayurveda for a more effective solution. Ayurveda's rich heritage offers numerous treatment modalities for various disorders. Cervical spondylosis, a degenerative Vata disorder (Asthigata vata), requires a pioneering Vata treatment known as Basti. Acharya Charaka has recommended the Basti of Tikta dravyas for Asthigat vata. The current study aims to examine the clinical effectiveness of Panchatikta Kshira basti in treating cervical spondylitis (Asthigata vata), which has been selected and found to be statistically significant.

Keywords: Ayurveda, Vata, Asthigata, Basti

Introduction:

"In the grand tapestry of God's creation, the evolution of humankind is often regarded as supreme, with all other creatures considered secondary. According to Indian tradition, the highest purpose of human life encompasses fourfold realization: Dharma (duty), Artha (prosperity), Kama (desire), and Moksha (liberation). Achieving these purposes requires maintaining good health. Throughout history, humans have grappled with the coexistence of birth, decay, and death. Abnormal health

conditions and their management have been studied since the dawn of human intellect. In our modern era of rapid technological advancements and busy lifestyles, stress and pressure have become commonplace. Factors such as improper sitting posture, continuous work in fixed positions, overexertion, and sudden movements during travel and sports contribute to stress injuries, particularly affecting the spine.

Cervical spondylosis, a degenerative condition of the cervical spine, is a significant health concern. The prevalence of cervical spondylosis was 13.76%, although it differed significantly among the urban, suburban, and rural populations (13.07%, 15.97%, and 12.25%, respectively). Moreover, it was higher in females than in males

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(16.51% versus 10.49%).¹ It primarily affects the intervertebral discs and vertebral bodies, leading to neck pain, stiffness, radiating arm pain, headaches, vertigo, and numbness. Although not immediately fatal, cervical spondylosis can cause severe complications over time, impacting daily life and overall well-being. Patients often struggle to perform routine tasks due to the intensity of pain. While ancient texts do not specifically mention "Cervical Spondylosis," it can be correlated with the concept of "Asthigata Vata." Asthigata Vata involves the degeneration of bone tissue and vitiation of the Vata dosha. Charaka, the legendary healer, recommended basti (enema therapy) prepared with substances like milk and ghee, processed in tikta rasa dravya (bitter-tasting herbs), especially for asthigata vata.² In this study, panchatikta kshira basti (a specific type of enema)

was selected to address the pathogenesis of Asthigata Vata."

Aim :

To study efficacy of Panchatikta Kshira kala Basti in Cervical Spondylitis.

Objectives:

1. To study Panchatikta Kshira Basti.
2. To study efficacy of Panchatikta Kshira kala Basti in Cervical Spondylitis.

Review of Literature:

Preparation of drug:

- Honey – 40 gm
- Rock salt – 5 gm
- Bala Oil – 80 ml
- Kalka (Paste of Panchatikta powder) – 30 gm
- Decoction (Panchatikta yavakuta) – 350 ml

Panchatikta is a group of five bitter drugs namely Guduchi, Nimba, Vasa, Kantakari and Patola as mentioned in Rasatringini.³ They have following properties-

Drug	Botanical Name	Rasa	Veerya	Vipaka	Guna
Vasa ⁴	Adhatoda vasica	Tikta, kashaya	Sheeta	Katu	Ruksha, Laghu
Nimb ⁵	Azadirachta indica	Tikta, kashaya	Sheet	Katu	Laghu, Ruksha
Guduchi ⁶	Tinospora Cordifolia (Willd.)	Tikta, Kashaya	Ushna	Madhura	Guru, Snigdha
Kantakari ⁷	Solanum Surattense Burn	Tikta, Katu	Ushna	Katu	Laghu, Ruksha, Tikshna
Patola ⁸	Trichosanthes dioica Roxb.	Tikta	Ushna	Katu	Deepana, Amapachana

Method of Preparation :

Decoction Preparation :

- Decoction serves as the main component of the Basti and is chosen for specific functions.
- Started by taking approximately 1.2 liters of water and adding 75 grams of Panchatikta Yavakuta to it.
- Boiled the mixture until it reduced to 350 ml (about ¼ of the original volume).
- Decoction preparation involves transferring the qualities of the herbal ingredients to water through the boiling process.

- Water, being the source of nourishment (Rasayoni), enhances the effectiveness and absorption of the Basti ingredients.
- The decoction's properties remain consistent even though the substratum changes from solid to liquid.

Boiling with Milk:

- Added 500 ml of milk to the prepared Panchatikta decoction.
- Boiled the mixture until the water completely evaporated.
- Milk is considered an excellent rejuvenating substance (Jeevaniya Dravya) with various beneficial properties.
- The combination of decoction and milk ensures compatibility and enhances the potency of the Basti.

Mixing Honey and Rock Salt:

- In a mortar, combined 5 grams of rock salt with 40 ml of honey.
- Triturated the mixture well.
- Rock salt helps disintegrate stickiness and astringency in honey, making it more effective.
- Honey acts as a rejuvenative substance and balances the doshas.
- Basti fortified with honey prevents excessive or inadequate action.

Adding Oil:

- Poured 80 ml of bala oil into the honey-rock salt mixture.
- Triturated the oil with the other ingredients.
- The oil's qualities (such as oiliness and heaviness) blend with the mixture, creating a uniform consistency.

Incorporating Kalka (Herbal Paste):

- Prepared a paste by mixing 30 grams of Panchatikta powder with water.

- Add the kalka paste to the mixture and ensure homogeneity.
- Kalka serves various functions, including stimulation, elimination, or pacification, depending on the doshas and tissues involved.
- It also provides the necessary thickness to retain the Basti in the bowel.

Final Step: Adding Decoction:

- Mixed the decoction with the other ingredients in the mortar.
- Stirred well to achieve homogeneity.
- Basti material was placed in hot water before administration

Material and Methods:

Study Design: open prospective clinical study.

Location of the study: OPD and IPD Patients of our college's hospital.

Study Population: Study will be carried out on the patients suffering from the sign and symptoms of Cervical spondylosis, those attending IPD and OPD of our college's hospital.

Selection Criteria :-

Inclusion Criteria :

- Patients having classical signs and symptoms of cervical spondylosis.
- X-ray of cervical spine showing relevant changes of cervical spondylosis.
- Patients between ages of 20-65.

Exclusion Criteria:

- Patient below the age of 20 years and above age 65 years were excluded in this study.
- Patients having associated conditions like fibrositis, rheumatoid spondylitis, ankylosing spondylosis, etc. were also excluded.
- Patient having fatal complications of serious illness were excluded.

- Patients having pregnancy were also excluded from the study.

Withdrawal Criteria:

The Patients will be withdrawn from the trial if

- If Patient himself want to discontinue the treatment anytime during the study.

- If patient have any side effect/adverse drug reaction. Treatment and management of these patients will be done accordingly in our hospital.
- Patient who fails to report for follow up or shows irregularity in treatment.

Sampling Technique: Simple Random Sampling Technique

Treatment

No. of subjects	20
Drug	Panchatikta Kshira Basti in the form of Kala basti
Dose	Anuvasana Basti - Bala Oil (120 ml), Niruha Basti - Panchtikta kshira Basti (500ml)
Time	Niruha Basti – in the morning empty stomach anuvasana basti -- in the morning after food.
Duration	16 days
Route of administration	Oral
Assessment	On 0 th & 16 th Days

In the present study, schedule of kala basti given by Chakrapani has been followed where on day first 1 Anuvasana was given then Afterwards 6 Anuvasana and 6 Niruha were given alternatively and at last 3 Anuvasana basti were administered.

Method of Administration of Panchtikta kshira basti :

After the patients had passed stool and urine, they underwent local Abhyanga (massage) with Bala Oil and Swedana (steam therapy using Nadi Sweda). During the preparatory procedure, patients were positioned on their left side, with the left leg extended and the right leg flexed at the knee, held near the abdomen. Movements during the administration of Basti (enema) were prohibited. For the Basti procedure, a simple plastic enema can and a rubber catheter (size 12) were used. The rubber catheter was attached to the enema can and lubricated with oil. The enema can was filled with the required quantity of the prepared Basti drug,

and the rubber catheter was gently introduced into the anus. The set was then elevated to allow gravity to facilitate the drug's passage into the rectum. To prevent sedimentation and blockage, the Basti drug was stirred periodically. After the administration of Basti, the catheter was removed, and patients were advised to relax in a supine position. Gentle pats were given on the soles and buttocks of the patients. Eventually, patients were instructed to get up from the table and rest in bed.

Method of Administration of Anuvasana Basti :

For administering Anuvasana Basti, a plastic syringe and a rubber catheter (size 12) were used. Patients were advised to have some food before

undergoing the procedure. The Bala oil was warmed, and the plastic syringe was filled with it. Next, the lubricated catheter was attached to the syringe. After performing local Abhyanga (massage), the catheter was slowly inserted into the anus. The oil was then steadily pushed by pressing the syringe handle. Once the Basti was administered, the catheter was removed, and patients were instructed to relax in a supine position. Gentle pats were given on the soles and buttocks of the patients. After some time, patients were advised to get up from the table and rest in their beds.

Assessment criteria

The improvement provided by the therapy was assessed on the basis of classical signs & symptoms of Cervical Spondylosis. All the signs & symptoms were assigned score depending upon their severity, to assess the effect of the procedure objectively. The following pattern was adopted for the scoring:

1.Pain-

Pain	Grade
Absent	0
Pain in the neck, mild aggravates with movement	1
Pain in neck, severe aggravates with movement	2
Pain mild or severe with radiation to arm	3

Pain in neck, radiation and disturbed the sleep	4
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2.Stiffness

Stiffness	Grade
Absent	0
Stiffness, no medication	1
Stiffness, relived by external application	2
Stiffness, relived by medication	3
Stiffness, is not responded by medicine	4

3.Tenderness

Tenderness	Grade
Absent	0
Mild	1
Moderate	2
Marked	3
Severe	4

1. Tingling Sensation:

Tingling sensation	Grade
Absent	0
Occasionally	1
Up to 1 hr	2
Up to 2 hr	3
More than 3 hr	4

Results:

Effect of treatment on assessment criteria was as follows

Parameter	Mean		Difference in means	Paired 't' test				Remark
	BT	AT		S.D.	S.E.M.	't'	'p' value	
Pain	2.13	1.1	1.03	1.1290	0.206	5.0137	<0.001	S
Stiffness	2.23	0.96	1.27	0.8683	0.1575	8.042	<0.001	S
Tenderness	2.36	0.93	1.43	0.710	0.1296	11.05	<0.001	S
Tingling sensation	2.26	0.63	1.63	0.764	0.1396	12.75	<0.001	S

Discussion and Conclusion:

- Cervical disc disease is increasingly prevalent, especially among urban populations. It stands out as a significant health issue in society. The rise in cases can be attributed to improper lifestyles, poor working habits, and incorrect sleeping and sitting postures.
- While there is no classical disease that precisely equates to cervical spondylosis, its core pathogenesis aligns with the concept of Asthigata Vata. As a type of Vata Vyadhi (disorder related to the Vata dosha), general factors that provoke Vata are considered as contributing causes. Vyana Vayu (a subtype of Vata) and Sleshaka Kapha (a subtype of Kapha) play essential roles in the manifestation of Asthigata Vata.
- Results from the present study indicate that neurological manifestations, such as tingling sensations, numbness, diminished muscle power, and reduced reflexes, improved significantly in the Basti group. This highlights the therapeutic effect of Basti therapy on neurological impairments. According to Ayurveda, Basti is the primary treatment modality for Vata Vyadhi, exerting systemic actions throughout the body. Emerging theories suggest that Basti may impact the central nervous system via the Enteric Nervous System (ENS).
- Furthermore, Panchatikta Kshira Basti is specifically indicated for bony disorders. It may contribute to halting further degeneration of bone tissue by enhancing tensile strength. These findings were statistically significant. In summary, Basti exerts its therapeutic actions through the following mechanisms:
 - Retards and arrests dehydration of the intervertebral discs
 - Strengthens paravertebral muscles

- Aids in repairing damaged myelin sheaths
- Enhances nutrition of bony tissue and strengthens it
- Improves overall nutritional status
- Enhances intestinal health and absorption.

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