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A COMPARATIVE EVALUATION OF AGNIKARMA AND MARMA CHIKITSA IN THE MANAGEMENT OF MANYASTAMBHA W.S.R. TO CERVICAL SPONDYLOSIS- A STUDY PROTOCOL

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ABSTRACT- In today's ill postures of working and sedentary lifestyle is common not just among the youth but every age. These habits are a big cause for Cervical spondylosis which is equal to *Manyastambha* in ayurveda. To treat this very common disease our *Acharyas* has mentioned miraculous treatment modalities like *Agnikarma* and *MarmaChikitsa.* In this study there is a comparsion done to check which of these treatment modality works better on *Manyastambha*

KEYWORD : *Manyastambha, Agnikarma, Marmachikitsa*, Cervical Spondylosis

INTRODUCTION

Ayurveda means 'The Science of Life'. It is considered to be the oldest healing science and often called as 'mother of all Healing". Ayurveda emphasizes not only on prevention but cure of disease and encourage the maintenance of health through close attention to balance in one's life, right thinking, diet, life style and the use of herbs. Ayurveda has two basic aims: first to preserve the health of healthy people. Second, to treat illness & disease.

Manyastambha is also one of those diseases which is not fatal but results in deteriorating the quality of life & hampers their daily routine work. *Manyastambha* is a *vataj nanatmaj vyadhi* among eighty disorders of *vata*[2].*Manyastambha* is derived from two different words *manya* & *stambh Manya* means the back or the nape of the neck. The meaning of the word *stambha* is *nischalikarana* (Stiffness , rigidity or immovable) . *Manyastambha* is the clinical entity in which the back of neck becomes rigid & movements of the neck are impaired or restricted[3]. In *Amarkosh 'Manya* is described as '*Greevapaschat Sira*'[4].

Manyastambha in contemporary system of medicine can be compared with cervical spondylosis. Because just like *manyastambha,* cervical spondylosis occurs in nape of neck which causes pain and stiffness which resembles with *manyastambha* of contemporary system of medicine. Its pathology starts with degeneration of intervertebral disc resulting in the compression of cervical nerve along with intervertebral space reduction.

NEED OF THE STUDY:

Cervical spondylosis is a common troubling problem. Yet the disease is not fatal, but its duration & attack makes patient uncomfortable. The management by modern medicine is conservative like rest, immobilization and use of analgesics, anti-inflammatory drugs, physiotherapy or surgical in later course of disease which has its cons also in the form of complications like recurrence , permanent loss of working capabilities etc and also a costly affair. As the conservative treatment with drugs has to be continued regularly for prolonged period, need-based research for a therapy/ management with better efficacy is required. Cervical spondylosis is a chronic health condition that cannot be cured completely. So a quest for search of different alternative methods in the management of cervical spondylosis is the need of hour.

WHY AGNI KARMA & MARMA CHIKITSA

Marma therapy is an ancient Indian practice for healing purpose which is based on the use of prana energy which is related to *marma* points. *Marma* points are the points in the body where *sira, snayu, marma, sandhi & asthi* meet. Any trauma to these points can lead to serious complications.On the national health portal of India, *marma* therapy has its place as an important ayurvedic treatment. During ancient times, knowledge of *marma* was known to kings and warriors. It was applied in battle fields to hit & achieve maximum lethal effect on enemies. This science was used both in warfare and surgery.

RESEARCH QUESTIONS: Is there any difference in the efficacy of *Agnikarma* with *Panchadhatu shalaka* and *Marma Chikitsa* in *Manyastambh*a ?

HYPOTHESIS:

Null Hypothesis (H_0): There is no significant difference between the efficacy of *agnikarma* with *Panchdhatu shalaka* and *marma chikitsa* in the management of *manystambha*.

Alternate Hypothesis (H_1): There is significant difference between the efficacy of *agnikarma* with *Panchdhatu shalaka* and *marma chikitsa* in the management of *manyastambha*.

AIMS AND OBJECTIVES:

- To assess the clinical efficacy of *Agnikarma* with *Panchdhatu Shalaka* in the management of *manyastambha.*
- To assess the clinical efficacy of *marmachikitsa* in the management of *manyastambh*.
- To compare the efficacy of *Agnikarma* with *Panchadhatu Shalaka* and *marma chikitsa* in the management of *manyastambha.*
- To provide a cost effective, safe, patient friendly, fast resulting treatment.

CLINICAL SOURCE:

- Daily OPD and IPD based patients of Shri Krishna Govt. Ayurvedic College and Hospital and patients diagnosed as *manyastambha* will be considered for the study after obtaining written informed consent.
- **Literary Source:**
  Ayurvedic Samhitas and medical text books related to surgery, articles & journals, research paper etc. will be screened for information regarding the subject.

Experimental source:

- It is a human clinical trial, no animal experimentation will be done.

MATERIALS AND METHODOLOGY:

Materials:

Panchadhatu Shalaka of *bindu* shape, surgical gloves, gown, cap, mask, kidney tray, distilled water, burner, aloe vera pulp, Turmeric, goniometer.

Methodology:

A total of 60 patients of *manyastambh* will be included for the study. The sampling method will be simple random using closed envelope method. The patient will be randomly distributed in 2 groups namely Group A & Group B

Groups	No of patients	Type of treatment	Duration
Group A	30	*Agnikarma* with *Panchadhatu Shalaka (Bindu* type)	21Days
Group B	30	*Marma Chikitsa*	21Days

Group A Procedure:

Agnikarma is divided into 3 phases according to *Trividh karma*

- *Poorva Karma* – Pre operative procedure
- *Pradhan Karma*- Operative procedure
- *Paschat Karma* – Post operative procedure

POORVA KARMA:

- Written informed consent will be taken as it is mandatory part of any surgical or Para surgical procedure.
- Patients is made to sit on the chair, bending his head on table with comfort.
- Goniometric measurements will be taken.
- Preparation of the local part: Neck area is cleaned with distilled water and wiped with dry sterilized gauze piece.
- Most painful sites are marked with marker with minimum 2-centimeter distance so that the burn site will not touch each other after *agni karma.*
- *Panchadhatushalaka* placed on burner till get red hot.

PRADHAN KARMA:

- Red hot *bindu* type of *Panchadhatu shalka* will be touched on the marked sites of neck. After getting *Samyak*

twakdagdha lakshans, shalaka will be removed from the site & placed on other marked sites of pain & tenderness.

PASCHAT KARMA:

- Immediately after *Agnikarma,* aloevera pulp will be applied on the site of *agnikarma* to avoid burning sensation and scar formation.
- Patient is advised to avoid dietic regimen which aggravates *vatakapha*.
- There will be four sitting of *Agnikarma* on Day 0, Day 7, Day 14 Day 21.

FOLLOW UP:

For post treatment observations –in 3 seating:

Patient will be called, once after a week i.e., on 28th day

Then 2 times on monthly basis i.e. on 58th day and 88th day.

GROUP B PROCEDURE:

- During *marmachikitsa,* following *marma* points of upper limb, neck and back region will be stimulated.

***MARMA* POINT OF HAND:**

1	*Kshipra*	*5*	*Manibandha*
2	*Talhridya*	*6*	*Indrabasti*
3	*Kurcha*	*7*	*Kurpar*
4	*Kurchashira*	*8*	*Ani*
9	*Urvi*		

Marma of neck : *10* *Krikatika*

Marma of back: *11* *Ansa*

12 *AnsaPhalaka* *13* *Brahti* [16]

SCHEDULE OF THE STUDY OF *MARMA CHIKITSA*:

	Day0	Day1	Day7	Day14	Day21	After 1week (day 28)	After 1 month (Day 58)	After 2 month (Day 88)
Screening	√							
Treatment		√						
Assessment		√	√	√	√			
Follow up						√	√	√
Observations		√	√	√	√	√	√	√

DIAGNOSIS CRITERIA: Patient will be diagnosed on the basis of signs and symptoms of *manyastambh* as per ayurveda & modern literature.

INCLUSION CRITERIA:

- 60 patients will be selected having sign &symptoms of *Manyastambh*
- Patients of either sex
- Patients in age group of 21-80 years
- Willingness of patients.

EXCLUSION CRITERIA:

- Patient below 21 years & above 80 years of age.
- Patients with
  - Neo Plastic Case
  - Recent Accidental Case of less than one year
  - Infective Pathology – meningitis
  - Neurological complications
  - Rheumatoid arthritis
  - Uncontrolled Hypertension, Diabetes mellitus, Cardiac disorders, severe anemia.
  - Non-Co-operative patients.
  - Pregnant patients as they are contraindicated for *Agnikarma*.
  - Ankylosing Spondylosis
  - Auto immune disorders involving musculoskeletal system
  - Local skin disorder

SUBJECTIVE CRITERIA:

- *Ruja*
- *Gatisang*

OBJECTIVE CRITERIA:

- Range & movement

CRITERIA FOR WITHDRAWAL:

Patients reporting with any of the following

- Patient willing to quit in between will be allowed to quit and will be replaced.
- If any acute illness or complications develops, patient will be treated accordingly and will be excluded from the study.

LABORATORY INVESTIGATIONS

- Routine hematological investigations like CBC, RA, Serum uric acid, Serum Calcium, CRP, Vitamin D3
- Blood sugar fasting and Post Prandial
- Urine examination- Routine &Microscopic
- Digital Xray of Cervical spine (AP & LAT.VIEW)
- MRI (if needed)

DIET AND LIFE STYLE

VataKaphashamak aahar and *vihar* will be advised.

STUDY DESIGN:

It will be open label randomized and interventional clinical study.

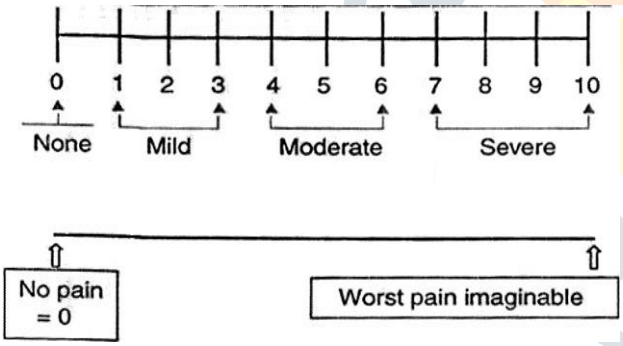
STATISTICAL CALCULATIONS

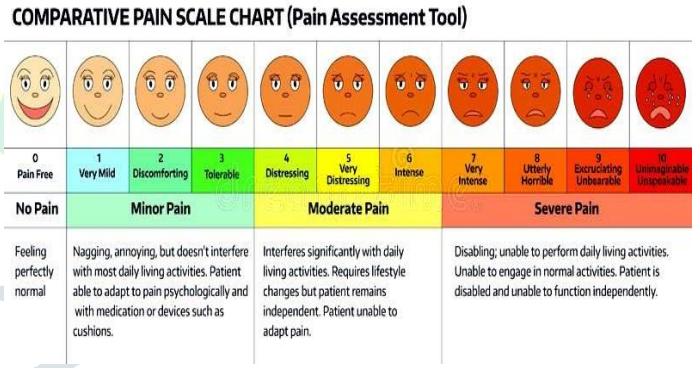
 Appropriate statistical methods will be used to analyze the data collected in the above observations & suitable conclusion will be drawn with the consultation of statistician.

ASSESSMENT CRITERIA

 Signs and symptoms on the basis of relief of pain, stiffness and restricted movements of neck will be scored as under: -

 Pain will be assessed by visual Analogue scale-





a) Subjective Parameters:

1) Neck Pain

Neck Pain	Grades	Before Treatment	After Treatment
No neck pain (0)	0		
Neck pain aggravates with movement (1-3)	1		
Neck pain without movement (4-6)	2		
Neck pain which disturbs the sleep (7-8)	3		
Continuous Pain (9-10)	4		

2) Stiffness:

Neck Stiffness	Grades	Before Treatment	After Treatment
No Stiffness	0		
Morning Stiffness	1		
Later hours stiffness on the same day	2		
Stiffness which disturbs the sleep	3		
Continuous stiffness	4		

b) Objective Parameters:

Goniometric Examination Restricted Neck Movements:

1) Flexion

Flexion	Grades	Before Treatment	After Treatment
No restriction i.e.able to touch the interclavicular line 80^0	0		
Movement from 70^0-80^0	1		
Movement from 60^0-70^0	2		
Movement from 50^0-60^0	3		
Movement less than 50^0	4		

Extension:

Extension	Grades	Before Treatment	After Treatment
Normal i.e. able to extend the head up to the level when tip of the nose and forehead become in horizontal plane 40^0	0		
Movement from 40^0-50^0	1		
Movement from 50^0-60^0	2		
Movement from 60^0-70^0	3		
Movement More than 60^0	4		

2) Lateral Flexion:

Lateral flexion	Grades		
Normal i.e. ear able to touch the shoulders tip, 45^0	0		
Movement from 45^0-55^0	1		
Movement from 55^0-65^0	2		
Movement from 65^0-75^0	3		
Movement more than 75^0	4		

Criteria of overall Assessment :

Relief in Sign & Symptom	Inference
80-100%	Complete remission
60-79%	Marked remission
40-59 %	Moderate remission
20-40%	Mild remission
Less than 20%	Unchanged

MANAGEMENT OF THE DATA The principal investigators will be responsible for coding the data.

ETHICS AND DISSEMINATION - Research ethical approval, after evaluation and presentation to the ethical committee, has been taken on the research topic No. CTRI/2022/11/047042.

CONSENT OR ASSENT - Subjects will be given information in their native language regarding the specifics of their therapy in great detail. The patients will then be asked to provide their written consent before the beginning of the trial.

The DISSEMINATION POLICY will take the form of presentations as well as the publication of papers.

DISCUSSION: The condition is known by its Sanskrit name, Manyastambha, which refers to the pathology that affects Cervical vertebrae. We will come across Manyastambha in Vatajananatmaja vikaras of Charaka Samhita. It has an effect on the madhyamarogamarga. Manyastambha is the condition that develops when Vata becomes vitiated and occupies the cervical vertebrae. Vata is considered to be the primary driving force behind the movement. Dhatukshaya is one of the things that can set it off. Manyastambha is a condition that falls within the gata Vata category of disorders. In general population, the point prevalence of neck pain ranges from 0.4% to 41.5% . The one year incidence ranges from 4.8% to 79.5% & lifetime prevalence may be as high as 86.8%. So a quest for search of different alternative methods in the management of cervical spondylosis is the need of hour.

PROBABLE MODE OF ACTION OF AGNIKARMA

Those disease which are not treated through medication, instrument *& Kshar*, get treated by *Agni*. After burning with *Agni*, disease never reoccur *Agnikarma* –The pain specialist in Ayurveda.

Agnikarma can relieve severe pain localized in skin, muscles, ligaments & joints. In the *Snayu, Asthi ,Sandhi Shoola , Snehan, Upanaha, Agnikarma , bandhan* and *mardana* are the methods of choice. It should be continued till the patient gets relief. *Acharya Sushruta* says *Nidanaparivarjana* is first line of treatment. *Manyastambha* being *vatavyadhi* associatd with *kapha, Agnikarma* can be performed. Both *vata & kapha* have *sheetaguna. Ushnaguna* produced during *Agnikarma* leads in pacification of *vatakapha doshas &* helps in increasing the *dhatvagni* (tissue fire). That's how it breaks the pathology and reduces pain.

PROBABLE MODE OF ACTION OF MARMA CHIKITSA :

Marma science can be explained as way of stimulating the vital points of the body to enhance the 'pranic energy'. This technique can be used at a critical moment of time for purpose of healing. These vital points are the seat of 'Prana'- the driving force & life. Therefore , the *marma* science is also defined as Art of Vital

science. [14] It pacifies *vatadosha,* bringing it to its normal path especially *vyanavata. Marma* therapy is the energy healing of ayurveda; utilising 107 points or doorways into the body and consciousness. Each point allows for entry into chakras - the vibrational energy centers along the spine in the subtle body, releasing blocked energy and stimulating pranic flow. Marma Therapy provides Tridosha –Triguna Samya(balance) as these points are seat of Prana .It pacifices doshas and bringing it to normal path. Stimulation of Marma can produce analgesia by secreting a number of prostaglandin inhibitors, endorphin, interferon and opoid like substance which are more potent than opium.

STRENGTHS - If the planned study yields a satisfactory result, it will be adopted as a new management method for the manyastambha. We shall be given an effective and economical treatment for pain relief and discomfort in society.

LIMITATIONS - Sample size is small, for better results sample size can be increased. Human error can be taken into consideration while mentioning the observations by the Patients.

CONCLUSION - Conclusion will be mentioned after the analyzing data.

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