

# COMPARITIVE CLINICAL STUDY ON EFFECT OF PRATIMARSHA NASYA AND NADISHUDDI PRANAYAMA IN VATAJA SHIRASHOOLA WSR TENSION TYPE HEADACHE

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## ABSTRACT

Ayurvedic texts describe not only Shirasoola as a symptom of various diseases but also as an independent disease entity as Shiroroga. Vataja Shirasoola is the disease of urdhwajatrugata roga, very common in females and teenagers, caused due to vegadharana, vata prakopaka aahara, excess lakshanas mental and physical stress etc. Lakshanas includes Shirasoola, Greevagraha, Akshi nishkanawat peeda, Prakashaasahatwa, disturbed sleep etc. This disease have similar symptoms and etiological factors to Tension Type Headache which is the most common of primary headache disorders with life time prevalence of approximately, 30-78% affects the regular activities. But treatment used includes painkiller etc which is having many side effects on regular use. Pratimarsha nasya is explained to be useful in all urdwajatru gata rogas by Acharyas. Nadi shuddhi Pranayama is helpful reduce stress and relaxs mind. Hence in this study an attempt is made to compare the effect of pratimarsha nasya with anu taila and Nadishuddhi pranayama in Vataja Shirasoola WSR to Tension Type Headache.

**Key words :- Vataja Shirasoola, Tension Type Headache, Pratimarsha Nasya, Anu taila, Nadishuddhi Pranayama**

## INTRODUCTION

Ayurveda is one of the most ancient medical sciences, which gives importance to swasthya of manas of an individual in maintaining his health. Health is defined in Ayurveda as a collective well being of components of shareera (Dosha, dhatu, mala, agni, mana) and this collective well being provide overall health of individual<sup>1</sup>. Asatmedriya samyoga, Prajnaparada and Parinama is considered to be root cause of any disease.

In this present era of technologies, Human beings has to face different challenges, adversities, stress and anxiety to fulfil his never ending desires, resulting in alterations of life style. These may affect physical, psychological, social, occupational and emotional wellbeing of an individual, causing different diseases like Hypertension, Obesity, Recurrent headaches etc. The response to psychological condition varies from individual to individual because each have different psychic and bodily constitution. The stress lifestyle can affect one's mind and hemeostasis of body by several psychosomatic mechanisms and result too many psychosomatic diseases.

Over 90% of the population experience headache of one type or another at least once during life. Tension Headache (renamed a Tension-Type Headache by International Headache Society in 1998) is the most common primary headache. They are benign recurrent headache usually occur in episodes. About 1.4 billion people (20.8% of total population) suffers from this condition. An estimated one year prevalence of 86% in women and 63% in men shows that women is more prevalent for such conditions<sup>2</sup>. Kaplan and Sadock (2009) have reported that amongst all types of headache 82% of headache patients suffer Tension Type Headache. Precipitating factors for such condition is stress, deprived sleep, irregular meals, strenuous activities, fatigue, anxiety, uncomfortable, stressful posture etc<sup>3</sup>.

Even though , neuropsychiatry have broad spectrum medications to treat the condition, such pharmacological management shows side effects like gastrointestinal disorders, weight gain , loss of memory ,rebound headache<sup>4</sup> and addiction in long use.

This condition can be clinically correlated to Vataja Shirasoola as both have similar presentation of symptoms and aetiopathogenesis includes mental factors like excessive anger, grief, fear. It is characterised by pain over temporal, neck and forehead, aggravates at night with no specific causes, associated with neck stiffness, photophobia<sup>5</sup>

According to Charaka, Manasantapa is one of the leading causes causing Shirasoola<sup>6</sup>. Acharya Charaka and Haaritha mentions shoka and bhaya is the specific causes for Vataja Shirasoola<sup>7</sup>

Being a burning problem , we need a safe, simple treatment modality which can control condition without further complications or side effects. Now a days ,a large population is searching for better treatments than painkillers and have good expectations from Ayurveda, as Ayurveda is a way of life having holistic approach rather than a system of medicine.

Pratimarsha Nasya is explained in Dinacharya by all Acharyas as part of Swasthavritta. Nasa is known as dwara for Shiras which is Uttamanga. Also the drug administered through nose nourishes the Shiras, akshi, shrotra and throat. Hence acharyas have considered Nasya karma as best in all urdwajatu vikaras<sup>8</sup>

Anu Taila has maha gunas and have best results in shirorogas .It is having Tridoshagna guna , strengthens indriyas , strengthens hair, improves health of skin and throat, is preenana, bhrumhana<sup>9</sup>. Preparation is explained in detail in Sahasrayoga and this preparation used for study<sup>10</sup> is based on this reference.

Pranayama is yogic technique, one among the Astanga Yoga , includes breathing techniques. It helps to manage pranic flow throughout the body and helps to reduce stress, anxiety and improves concentration. It makes mind clear and calms mind. This will help to improve satwa of person<sup>11</sup>

As Ayurveda is growing science globally still more explanation of procedures are essential to meet growing demand . Beneficial action of Nadi Shuddhi Pranayama in Tension Type Headache has been reported<sup>12</sup>. But beneficial action of Pratimarsha Nasya with Anu Taila in Tension Type Headache has not been proved yet. Hence study was done to evaluate and compare effect of administration of Pratimarsha Nasya and Nadi shuddhi Pranayama in Vataja Shirasoola WSR to Tension Type headache

## METHODOLOGY

### SOURCE OF DATA

Patients with classical signs and symptoms of vataja shirasoola will be selected from O.P.D and I.P.D of Ashwini Ayurveda Medical college, Tumkur

Literary aspect of the study pertaining to vataja shirasoola, pranayama, pratimarsha nasya and tension type headache will be collected from Ayurvedic books , modern texts, recent medical journal researches

### METHOD OF COLLECTION OF DATA

30 Subjects fulfilling the diagnostic criteria and inclusion criteria will be randomly selected and divided to group of 15 each for the study.

The criteria of diagnosis will be based on clinical parameters of Vataja Shirasoola and Tension Type Headache.

### DIAGNOSTIC CRITERIA :-

- Animitha siroruja
- Akshi Nisthodawat peeda
- Teevram nishichatimaatram
- Greeva graha
- Shankanistoola
- Prakashasahatwa

At least 2 of following pain characteristics:

- Pressing / tightening ( non pulsating ) quality
- Mild to moderate intensity( may inhibit but does not prohibit activities)
- Bilateral location
- No aggravation on climbing steps or similar routine activities

Subjective assessment is done by different signs and symptoms explained regarding Vataja shirashoola and Tensin Type Headache in different texts

Objective assessment in this study is done with Headache Disability Index. Headache Disability Index is used for assessing disability caused due to Headache. Usually Tension headache is Mild to Moderate intensity, may cause mild disability. This index can help for differential diagnosis from other Primary Headaches by its intensity.

### INCLUSION CRITERIA

- Patients in age group of 16 yrs -50 yrs
- Patients with pratyatma lakshanas of vataja shirasoola and tension type headache
- Patient irrespective of sex, religion or socio economical status

### EXCLUSION CRITERIA

- Patients with other primary headaches like migraine, cluster headache, chronic daily headache
- Patients with secondary headaches due to meningitis, intracranial lesions, cervical spondylosis
- Patients with sinusitis and other ENT infections
- Any pathology to eyes like glaucoma
- Associated systemic disorders like hypertension, diabetes mellitus etc.
- Pregnancy and lactating mothers
- Patients contraindicated to Pranayama
- Those who are contraindicated to Pratimarsha Nasya
- Any psychiatric and psychosomatic disorders, those under psychiatric medication

### RESEARCH DESIGN

Total 30 patients of tension-type headache patients fulfilling the inclusive and exclusive criteria will be randomly selected and divided into two groups as group A & group B, with 15 subjects each.

Group A will be given Pratimarsha Nasya with Anu Tailam for 30 days

Group B will be advised for Nadishuddhi Pranayama for 30 days

Patients will be reviewed once in 15 days of the clinical study and follow up will be done after 30 days of completion of study.

### DATA ANALYSIS

Data will be collected using case report form designed by incorporating all aspects for the study. Such collected data will be tabulated and analysed using SPSS version 20 by using appropriate statistical data. Demographic data and other relevant information will be analysed with descriptive statistics. Continuous data will be expressed in mean  $\pm$  standard deviation and nominal and ordinal data will be expressed in percentage. Obtained data will be analyzed statistically by student t test.

### OBSERVATIONS

Patients of age group 21- 30 yrs were dominant in this study. It is mainly due to the occupational specialities and lifestyle errors. Most patients in this study were females. Different factors like irregular sleep patterns, stressful work environment, less physical activity all attributes to this and all were considered during study. Aggravating factors include Night time, exposure to cold, mental and physical stress, irregular diet and vegadharana. In this study, more persons showed aggravating factor of night time and cold exposure. Relieving factors include hot application, bandage, rest etc. Person with more mental stress, irregular life pattern and food are more susceptible to this condition

**RESULT**

**Statistical Analysis of different assessment criteria, between 2 groups on 30th day of study**

**Based on study done :**

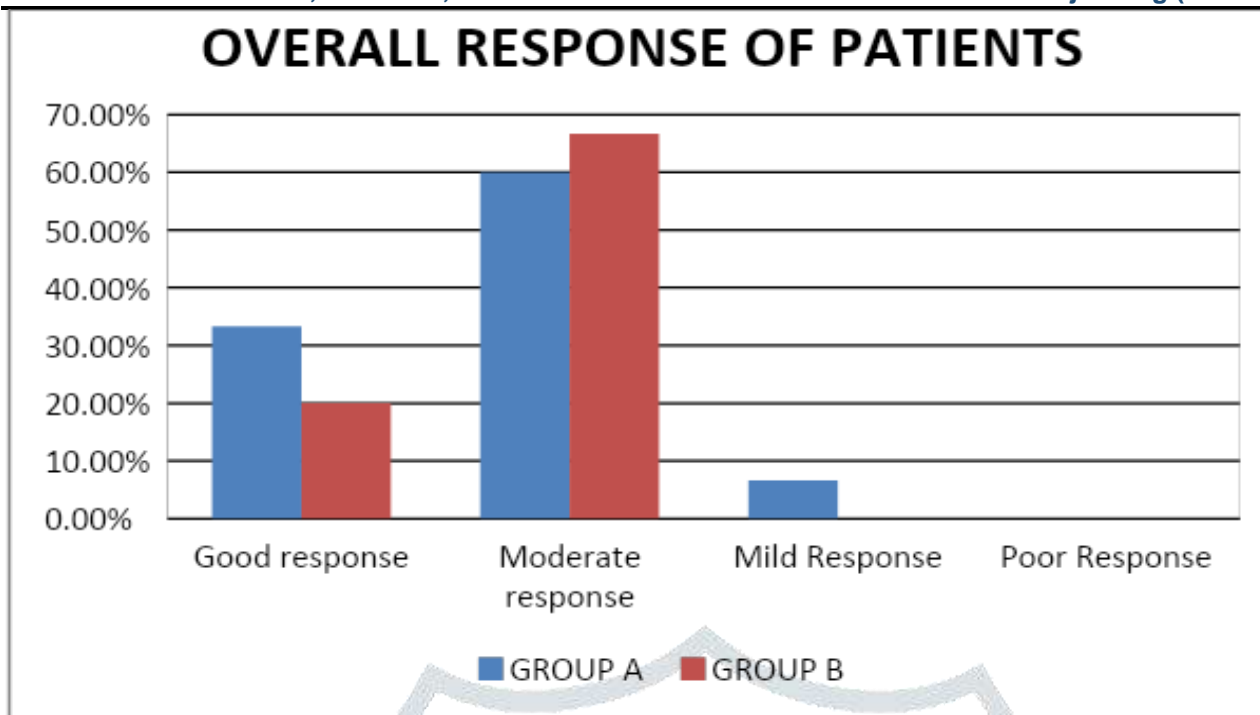
Variables	Group A	Group B	Total	p-value
Headache	0.80± 0.41	1.07± 0.46	0.93± 0.45	<0.05
Disturbed sleep	1.27± 0.59	1.47± 0.52	1.37± 0.56	>0.05
Frequency of headache	0.47±0.52	0.53± 0.52	0.50± 0.51	<0.05
greevagraha	0.20 ± 0.41	0.73±0.59	0.47± 0.57	<0.05
Akshi nisthoda	0.27± 0.46	0.40± 0.51	0.33± 0.48	>0.05
Headache Disability Index	0.26± 0.44	0.06±0.2	0.33± 0.48	>0.05

**OVERALL ASSESSMENT OF RESPONSE OF TREATMENTS IN 2 GROUPS:**

Table shows overall assessment of response of treatment in 2 groups

Overall Response	Group A		Group B	
Good Response	5	33.33%	3	20%
Moderate Response	9	60%	10	66.66%
Mild Response	1	6.66%	2	13.33%
Poor Response	0	0	0	0
Total patients	15		15	
	Overall response is better in Group A compare to Group B			





Graph shows Overall assessment of response of patients.

Both Groups showed good response to treatment modalities. Comparative analysis of overall effect of study showed treatment is more significant in Group A compared to Group B. All assessment criterias showed better results in Group A compared to Group B

## DISCUSSION

### DISCUSSION ON PROBABLE ACTION OF PRATIMARSHA NASYA KARMA:

Pratimarsha Nasya with Anutaila (Ayurvedic medicated oil) is explained as a procedure in Dinacharya by Acharya Charaka in the prevention of various diseases including Shirosoola. Considering the simple nature of the procedure, it may be used daily, unassociated with adversities and there are no other complications, so, Anutaila Pratimarsha Nasya was used for study of Vataja Shirasoola.

#### Probable mode of action

In the treatment of Vataja Shirasoola, Acharya Charaka and Vagbhata mention "Nasa hi shiraso dwaram" means nose is gateway of head. Anu Taila is considered to be best to cure all urdwajatu vikaras including shirasoola. The principle of both Pratimarsha and Marsha are same, but the differences between these two are in the dose, total number of days administered, time of administration and also the Kala

In Ashtanga Samgraha, it is explained that Nasa being door way to Shiras, the drug administered through nostrils, reaches Shringataka and spreads in Murdha taking route of Netra, shrotas, kantha, siramukhas etc and scratches the morbid doshas in supraclavicular region and extracts them from the Uttamanga.

Nasya is one of the important procedure in Ayurveda which helps to achieve objectives of Swasthivrita. Nasya refers to the procedure in which medicine or medicated oil is administered through nostrils. Nasya is one of the procedure of Panchkarma and has many types but only Pratimarsha Nasya is included in Dinacharya.

Dinacharya refers to daily routine followed by a healthy person to keep himself healthy i.e. for prevention of diseases and promotion of health

Chief complaints and associated complaints were improved due to tridoshagna and shirasoolagna action of Anu taila. Anu taila is having property of ability to reach minute channel and removes all doshas lodged in srotas. The sneha reaches in srotas, oleation and strengthening action takes place on Urdwajatu pradesha, hence curing diseases

shirasoola. Vatahara and soolagna property of tila taila, main ingredient of Anu Taila, helps to reach the drug in microchannels so the drug easily comes into systemic circulation and break dosha dooshya samoorchana. As the study is with Pratimarsha nasya, Time duration needed for action is more due to reduce doseage. It maybe followed up as a Dinacharya modality of patient for best result

## DISCUSSION ON PROBABLE ACTION OF NADI SHUDDHI PRANAYAMA:

In Nadi Shuddhi Pranayama, due to deep penetration of Prana, the blood receives a larger supply of oxygen than in other types of Pranayama. The nerves are calmed and purified and the mind become still and lucid. It helps to improve concentration and robust health and longevity

The awareness is directed towards the breathing process, which reduces the perception of the disturbing sensory inputs from the external environment. This helps one to become more sensitive to and conscious of the flow of the air in the beginning and later on of the inner happenings. This will also restore the natural regular rhythm and balance in the nasal cycle phenomenon. Nostrils are supplied with both sympathetic and parasympathetic branches of the autonomic nervous system, which are also related with other autonomic functions of the body as well as the opposite forces working with mental, emotional and psychological activities of the individual. It is also related to right and left hemispheric activity and the autonomic control on the endocrinal functions. During the practice of this Pranayama the cortical activity in relation with the intellect analysis, ego, consciousness and the thought processes is greatly reduced to a minimal.

It brings tranquility and peace to the mind making it more balanced and stable. The soothing effect of this Pranayama on the nervous system reduces various emotional tensions and one feels relaxed and light. It induces calmness of mind by regulating the flow of prana in the body. It helps to remove congestion or blockage of Nadis and thereby allows free flow of Prana. Its practice keep body warm, destroys diseases, gives strength and brings serenity, hence reducing tension

## CONCLUSION

The study has shown Vataja Shirasoola has similar clinical features with Tension type headache, hence can be compared. This study shown condition is more prevalent in age group 21- 30. Condition is more common in Females than males

Both Pratimarsha nasya and Nadishuddhi pranayama are safe and effective in this condition

Both methods does not produce any complications during treatment period

Anu Taila have good result in urdhvajatruvikara because of its mahaguna, tridoshagna etc

Patients treated with nadishuddhi pranayama showed relief but but less compared to pratimarsha nasya. More effect of both treatment were shown during follow up period

Pratimarsha nasya with Anu Taila showed good clinical improvement, it is both statistically and clinically significant in this study

Frequency of episodes of Tension headache showed good clinical improvement – in both Group A and B.

Pratimarsha Nasya is administered daily as Dinacharya procedure with Anu Taila- it strengthens urdhvajatru and prevents rogas of urthwajatru areas

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