



Review Article

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CRITICAL ANALYSIS OF SHIROVIRECHANA KARMA IN DIFFERENT TYPES OF HEADACHE: A REVIEW

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ABSTRACT

Headache refers to a variety of head pains and discomfort. Prevalence among adults is about 50%. Females are more prone than men. It affects people of all ages, races, income levels and geographical areas. It often results into increased personal and social burdens of pain, disability, damaged quality of life, and financial cost. Depending on the cause the International Headache Society classified various types of headaches into primary and secondary. Treatment of a headache depends on the underlying cause, but commonly involves analgesics which when used continuously have serious side effects. So it is the need of the hour to bring forward such treatment options which do not cause much side-effect and give positive results in the management of headache with minimal use of oral drugs. Shirahshoola is a disease in Ayurveda which involves all kinds of headache. Management through Ayurveda includes various Panchakarma (the five cleansing therapies) procedures like Shirovirechana Karma (Errhine therapy), Shirodhara (therapy that involves gently pouring liquids over forehead), Shirobasti (holding medicated oil on the head for a specific period of time with the help of cap), Shiroabhyanga (head massage) etc. Shirovirechana karma is one of the commonly practiced procedures in the disorders of head and neck. It can be used as preventive measure in different stressful conditions.

Keywords: Headache, Shirahshoola, Panchakarma, Shirodhara, Shirovirechana Karma

INTRODUCTION

Headache is the term used by patients to describe a variety of head pains and discomforts¹. It is the symptom of pain anywhere in the region of the head. Frequent headaches can affect relationships and employment. There is also an increased risk of depression in those with severe headaches². Despite regional variations, headache disorders are a worldwide problem, affecting people of all ages, races, income levels and geographical areas³. Approximately 64–77% of people have a headache at some point in their lives. During each year, on average, 46–53% of people have headaches^{4,5}. The direct and indirect socioeconomic costs of headache to society are estimated at \$14 billion per year⁶.

Disease Review (Modern)

Depending on the cause the International Headache Society has broadly classified headaches as "primary" or "secondary"⁷. A primary headache has no known underlying cause. Secondary headache is the result of another condition causing traction on or inflammation of pain sensitive structures. Headache due to psychiatric disease is also considered secondary. The most common primary headaches include migraine, tension type headache and cluster headaches. Headaches related to infection, vascular disease and trauma are examples of more common secondary headaches⁸.

Aetiopathogenesis of Headache

Headache is manifested by following factors:-

- Distension, traction or dilation of intracranial or extracranial arteries.
- Traction or displacement of large intracranial veins or their dual envelope.
- Compression, traction or inflammation of cranial or spinal nerves.
- Spasm, inflammation or trauma to cranial and cervical muscles.
- Meningeal irritation and raised intracranial pressure.

Whatever the source of pain, after the pain message enters the spinal cord or brain, it goes through synapses. At each synapse, small nerve cells release morphine like substance, which prevents the pain impulses from proceeding further. There are, therefore, "pain gates" in nerve pathways going through the brainstem, which can be opened or closed by amines e.g. serotonin and noradrenalin. Deletion of these amines will open the pain gates to any trivial stimulus. Reversely, elevation in the concentration of these amines will close the pain gates, preventing stimuli from reaching the conscious level.⁹

Disease Review (Ayurvedic)

In Ayurveda Shirahshoola is a disease which involves all kinds of headache. It denotes the painful condition of the head.

Table 1: Terminologies given by different Acharyas for headache

Acharya Charaka	Shiroroga
Acharya Sushruta and Bhavamishra	Shirobhitapa
Acharya Vagbhatta	Shirastapa

Shirahshoola is described in Ayurveda not only as the symptom of many diseases but also as an independent disease entity as Shiroroga (disease of the head)¹⁰.

Guru Ahara (heavy meals), Amlaahara (food that tastes sour), Ati-Sheet Ambusevana (consuming chilled water), Shirobhighata (head injury) etc.¹¹

Nidana (causative factors) of Shirahshoola

Conditions causing vitiation of Tridosha (the three humors of the body) like Vegavarodha (suppression of natural urges), Divaswapana (sleeping at daytime), Ratrijagarana (waking up whole night), Madya Sevana (consuming alcohol), Uchabhashana (speaking loudly), Atimaithuna (excessive coitus), Asatmyagandha (unpleasant odour), Aghata (injury),

Table 2: Samprapti Ghataka (aetiopathogenic factors) of Shirahshoola

Dosha	Vata Pradhan Tridosha
Dushya	Rasa, Rakta
Strotas	Rasavaha ,Raktavaha, Manovaha
Strotodushti	Sangha, Vimargagaman
Agni	Jatharagnimandya
Prasaar	Rasa, Rakta Vahini Dhamniyan



Figure 1: Samprapti of Shirahshoola

Acharya Charaka has described five types of Shiroroga, whereas Sushruta, Bhavamishra and Yogaratnakara have classified eleven types of Shiroroga.

Table 3: Ayurvedic correlation of some common types of headaches

Headache	Ayurvedic correlation		Dosha involved
Migraine	Ardhavabhedaka	Acharya Charak	Vata/Vata Kaphaj
Cluster Headache		Acharya Sushruta	Tridosha
Tension type of headache	Vatik Shirahshoola	Acharya Sushruta	Vata
Sinus type	Dushta Pratishaya	Sushruta	Tridosha
		Vagbhatta	
		Charaka	
Trigeminal Neuralgia	Ananatavata	Sushruta	Tridosha

Management

In modern medicine the treatment of headache depends on the underlying cause, but commonly involves analgesics which when used continuously have serious side effects. So it is the need of the hour to bring forward such treatment options which do not cause much side-effect and give positive results in the management of headache with minimal use of oral drugs.

In Ayurveda general management of Shiroroga include:

1. **NidanaParivarjana:** The etiological factors producing headache should be avoided.
2. **Satvavajaya:** It is a non pharmacological approach aimed to control the mind and restrain it from unwholesome objects or stressors. Used in those headaches where stress plays a major role.
3. **Samshamana Chikitsa (disease pacifying):** The vitiated Dosha should be brought to their normal state by help of drugs, based on Samanya Vishesh principles, according to predominance of the manifesting Dosha.

4. **Samshodhana Chikitsa** (cleansing and purification): Snehana (Oleation therapy), Upanaha (fomentation by application of warm paste), Swedana (Sudation/Fomentation therapy), Dhumapana (inhalation of smoke made from medicinal drugs), Lepa (Langhana (Fasting), Parisheka, Agni karma (Cauterization), Raktamokshana (Bloodletting), Shirobasti, Shirovirechana karma have been advised for Shiroroga in various Ayurvedic texts. Shirovirechana Karma has been advised as the important method of treatment in Urdhwajatrugata Roga (Diseases of head and neck). Thus repeated use of Nasya (Errhine therapy) with special medicine which is indicated for such condition is to be put into practice in headache.

DISCUSSION

Shirovirechana- The term Shirovirechana is used as a synonym for Nasya. Other synonyms of Shirovirechana are Murdhavirechana, Naavan, Shirovireka, Nastah Karma etc. Acharya Sushruta has described Shirovirechana as a particular variety of Nasya karma. Shirovirechana indicates its main function of eliminating morbid doshas particularly from the head or parts situated above the clavicle. Acharya Charak has described the term Nastah prachardana for Shodhana done by nasya¹². It is the best method to eliminate and alleviate the vitiated Doshas of Urdhvanga¹³. Shirovirechana Karma is clearly indicated in disease of head and neck (Urdhwajatrugata Vikara) especially involving Kapha Dosha Pradhanta¹⁴. Acharya Sushruta has mentioned the dose of Shirovirechana Nasya as 4 drops for Hina, 6 drops for Madhyama and 8 drops for Uttama¹⁵.

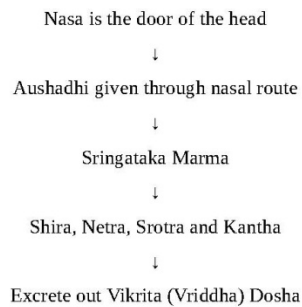


Figure 2: General mode of action of Nasya Karma¹⁶

Role of Shirovirechana Karma in headache

Majority of the ingredients of Shirovirechana drugs possess Laghu (light), Tikshna (pungent) Guna (quality), Ushna virya (potency), and Katu (Pungent) Vipaka (taste produced at the end of the digestion process) which facilitate Srotoshodhaka (cleansing) effect and due to Sukshma Srotogami (rapidly penetrating into micro channels) property, it is imbibed at the cellular level by entering microcirculation and causing profuse secretions by irritating the nasal mucosa. Hence, it mobilizes the Kaphadi Dosha and then expels them out from the nearest outlet and simultaneously strengthens the Indriya (sense organs)¹⁷. Thereby; it removes the Avarana (occlusion) caused by Kapha Dosha over Vata. Aggravation of Dosha takes place in Shirah

(Head) due to irritating effect of administered drug, which results in an increased blood circulation to the brain due to vasodilator effect of histamine released in response to irritation caused by the Shirovirechana drug¹⁸. The facial vein has a direct connection to the ophthalmic vein and then to deep venous sinus within the cranial cavity the cavernous sinus. Facial vein does not possess any valve in its course, and the cavernous plexus stands for arteriovenous communication of the nasal cavity. Therefore, there is the possibility of reverse circulation of Shirovirechana Dravya, reached to the brain circulation after being absorbed by highly vascular mucous membrane of nasal cavity¹⁹. Hence, accumulated morbid Dosha are expelled out from small blood vessels and ultimately they are eliminated through the nasal discharge and by salivation.

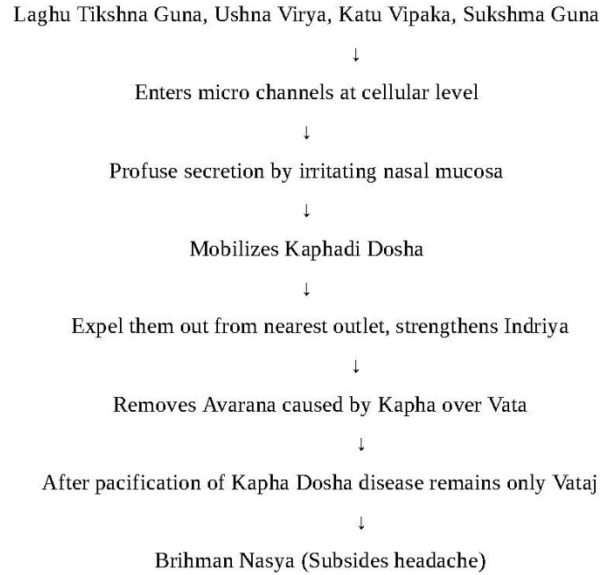


Figure 3: Role of Shirovirechana Karma in Headache

As Shirovirechana karma is used to expel out Doshas therefore it is used mainly in Kaphaj, Tridoshaj (involving all three Dosha) and Dwandaj (involving any two Dosha) conditions of headache. Pure Vataj and Kshayaja (causing deterioration) conditions should be excluded. So; it is used in those headaches in which there is Dosha involvement of Kaphaj, Ttridoshaj and Dwandaj conditions excluding Vataj and Kshayaja conditions.

CONCLUSION

As nose is the door of the head, Nasya Dravya reaches the brain and controls different functions by balancing vitiated Dosha. Moreover, from the above discussion we can say that Shirovirechana karma is best therapeutic measure for-headache involving Kapha Dosha Pradhanta and conditions of Avarana of Kapha over Vata.

REFERENCES

1. Devangi Dharaiya. Jaladhara-Jatamansi-Vatika Shirahshoola tension Headache, MD Ayurveda Thesis. IPGT and RA, Jamnagar, Gujarat; 2004.
2. who.int. Headache disorders Fact sheet N°277. World Health Organisation October; 2012. <http://www.who.int/mediacentrefactsheets/fs277/en/>.
3. Bhageshwary Janagal et al. A Conceptual Study of Shirodhara in the Management of Shirahshoola. Ayushdhara 2017; 4 (1): 1045.
4. Manzoni G C, Stovner L J. Epidemiology of headache. Handbook of Clinical Neurology 2010; 97: 3–22.
5. Stovner L Andree C: Prevalence of headache in Europe: a review for the Eurolight project. Journal of Headache Pain 2010; 11 (4): 289–299.
6. Hux H, Markson LE, Lipton RB et al. Burden of migraine in United States: disability and economic costs. Arch Intern Med 1999; 159: 813-818.
7. Paul Rizzoli, William J Mullally. Headache. The American Journal of Medicine 2018; 131(1): 17-34.
8. Paul Rizzoli, William J Mullally. Headache. The American Journal of Medicine 2018; 131(1): 17-34.
9. Devangi Dharaiya. Jaladhara-Jatamansi-Vatika Shirahshoola tension Headache, MD Ayurveda Thesis, IPGT and RA, Jamnagar, Gujarat; 2004.
10. Devangi Dharaiya. Jaladhara-Jatamansi-Vatika Shirahshoola tension Headache, MD Ayurveda Thesis. IPGT and RA, Jamnagar, Gujarat; 2004.
11. Shastri Datta Rajeshwara, Upadhyaya Yadunandan, Pandeya Sahaya Ganga, Gupta Dasa Banarasi, Mishra Brahmashankara (editors). Commentary: Vidhyotani teka of Kasi Nath Sastri and Gorakha Nath Chaturvedi of Charak Samhita of Agnivesha, Chaukhambha Sanskrit Sansthan, 5th edition, Varanasi, Sutrasthan, Chp.17, verse 8-11; 2009. p. 231.
12. Acharya JT, editor. Dirghamjivitiya adhyaya. Charaka Samhita of Charaka, Chaukhambha Orientalia Varanasi, Reprint, Sutra Sthana, Ch. 1, Ver. 85; 2011. p. 21.
13. Paradakara HS, editor. Ashtang Hridaya of Vagbhata, Chaukhamba Sanskrit Sansthan, Varanasi, Sutra Sthana, Chapter 20, Nasyavidhimadhyaya, Verse 1; 2014. p. 287.
14. Kaviraj Ambikadatta Shastri, editor. Sushruta Samhita of Sushruta, Chaukhambha Sanskrit Sansthan, 11th Ed., Varanasi, Chikitsa Sthana, chapter 40, verse 23; 2008. p. 182.
15. Kaviraj Ambikadatta Shastri (editor). Sushruta Samhita of Sushruta, Chaukhambha Sanskrit Sansthan, 11th edition, Varanasi, Chikitsa Sthana, chapter 40, verse 36. p. 183.
16. Shastri Datta Rajeshwara, Upadhyaya Yadunandan, Pandeya Sahaya Ganga, Gupta Dasa Banarasi, Mishra

- Brahmashankara (editors). Commentary: Vidhyotani teka of Kasi Nath Sastri and Gorakha Nath Chaturvedi of Charak Samhita of Agnivesha, Chaukhambha Sanskrit Sansthan, 5th edition, Varanasi, Siddhisthan, Chp.9, verse- 88; 2009. p. 1070.
17. Acharya JT, editor. Matrashitiya adhyaya. Charaka Samhita of Charaka, Chaukhambha Orientalia, Varanasi, Reprint, Sutra Sthana, Ch. 5, Ver. 70; 2011. p. 42.
18. Guyton Arthur C., Local control of blood flow by the tissues and hormonal regulation. Textbook of Medical Physiology. 8th ed., Ch 17. Bangalore: PRISM Books Pvt. Ltd., W.B. Saunders Company; 1991. p. 192.
19. Kantikar Mechanism of Nasya. Mechanism of Panchakarma and its module of investigation. 1st ed., Chaukhambha Sanskrit Pratishthan; Delhi, Part 1, Ch. 6; 2013. p. 115.

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