



Exploring Role of NASYA in the Management of Tourette syndrome (TICS): A Comprehensive Review.

Dr. Akshay R. Sapkal¹, Dr. Ravikumar B. Patil²

¹P.G. Scholar, Department of Panchakarma, Yashwant Ayurvedic College, Post Graduate Training & Research Center, Kodoli, Maharashtra.

²Professor, Department of Panchakarma, Yashwant Ayurvedic College, Post Graduate Training & Research Center, Kodoli, Maharashtra

ABSTRACT

An ayurveda being the emerging branch in the current era it is full of surprises and a variety of new concepts which are yet to be discovered. The thought processing of an individual varies on various concepts and as such in ayurveda the treatment modalities vary. In this current scenario ayurveda is coming up with new treatment modalities which are yet to be documented and published on a global platform.

Tourette syndrome is a hereditary disease in which muscles and vocal tics occur frequently throughout the day for at least one year. Tics are rapid, purposeless, involuntary movements that are virtually identical to one another and are repetitive but not in a rhythmic manner. This syndrome often begins with muscle tics accompanied by vocalization. A person characteristically can voluntarily suppress tics for a short period of time but then experiences an irresistible urge to express them.¹

According to treatment various modalities the only way to cure the disease from its root is by Shodhana Chikitsa which includes Panchkarma. The Panchkarma includes Vaman, Virechan, Basti, Raktamokshan and Nasya. Before using the panchakarma dushya, desh, bala, kala, prakriti, agni, age, etc. dashvida bhava are assessed and then the person is given the treatment as per avastha of the disease.²

Among the five procedures included in panchakarma the nasya procedure refers to administration of medicated oil or medicine through the nostril. It is the therapy usually used to treat diseases above the neck region. As a famous saying in ayurvedic text the nose is the gateway to the head³. This treatment modality is used for the disease occurring above the neck region.

The pathology and physiology of Tourette syndrome suggests alteration in neurotransmission and in some cases it may be the consequence of an autoimmune response associated with

infection leading to autoimmune neuropsychiatric disorders associated with streptococcal infection however this entity remains controversial.⁴

As in ayurveda full body is made of uncountable strotas and among them aacharya's has described some strotas one of it is majjavaha strotas which has mul sthan in the bones and joints. Out of seven dhatus majja dhatu has important functioning related to the brain and its centres. Vaat dosha having the functions essential for movement within the body and movement of the body. All the above components are essential in formation of diseases. And these above mentioned leads to formation of vikar and they are called vyadhi ghataks which are mainly corrected during treatment.⁵

Keywords: *Nasya, Tourette syndrome, Ayurved, Panchakarma.*

INTRODUCTION

Ayurveda is form of ancient medicinal way which is primitive and foremost holistic healthcare system. It mainly focuses on prevention of disease and maintaining the harmony between mind and body. Its treatment principles also include the removal of disease from its root cause and for it they have proposed various shodhana methods. The term shodhana means removing the vitiated doshas from the body using the procedures called as panchakarma.⁶ The panchakarma includes five treatment modalities which are as follows :

- 1) Vaman (Biopurificatory therapeutic emesis)
- 2) Virechan (Biopurificatory therapeutic purgation)
- 3) Basti (Biopurificatory therapeutic decoction based enema)
- 4) Nasya (Therapeutic nasal root admission)
- 5) Raktamokshan (Therapeutic bloodletting)⁷

Nasya according to aacharya's classification of this is done in many categories. We can consider it as a root of drug administration as the saying in ayurvedic text nose is the gateway to the brain by this principal we can have quick effect on the brain and diseases related to it. And among various diseases the Tourette syndrome can be manage up to certain extent. The drugs used in the procedure can vary as per the avastha of dosha and its relative factors.⁸

AIMS & OBJECTIVES:

1. To review the literature for knowing the perspective of nasya in management of Tourette syndrome (Tics).
2. To study Tourette syndrome (Tics) according to modern principles.
3. To study nasya according to ayurvedic science.
4. To review the role of nasya in management of Tourette syndrome (Tics).

REVIEW OF LITERATURE

Classical texts of ayurveda like Charak samhita, Sushrut samhita, Ashtang hriday samhita are reviewed along with the book Principles and practice of ayurvedic clinical medicine. The modern aspect disease included in the review is taken from Davidson's Principles and Practice of Medicine Book. Secondary sources like digital media, research portals and other websites are reviewed as reference materials in this review. And some of the facts which are published on the website of google are collected and presented in this review.⁹

DISCUSSION

Tourette syndrome (Tics):

It is neuro behavioural disorder named after French neurologist Georges Gilis de la Tourette. It affects predominantly males and it's prevalence is estimated 0.03 to 1.6%. This disease does not come to medical attention in the early stage. This is even not known until some serious problems are raised. This is characterized by tics habit. It is present between the age group of 2 to 15 years and a symptom tends to disappear at adulthood.¹⁰ Various behavioral disturbances and problems seen in the patients are as follows

Behavioral disturbance:

- 1) Anxiety
- 2) Depression
- 3) Attention deficit hyperactive disorder (ADHD)
- 4) Obsessive compulsive disorder (OCD)

Other problems

- 1) Personality disorder
- 2) Self destructive behavior
- 3) Difficulty in school
- 4) Impaired interpersonal relationships

Ayurvedic Perspective:

The above phenomenon can be linked up to a certain extent which can be managed by using the nasya treatment modality. According to ayurveda among sapta dhatu majja dhatu which can be correlated with bone marrow, nerve, grey and white matter of the central nervous system. Among tridosha, vaat dosh controls the physiological aspect of the body like initiation of natural urges, movements, etc. which are mainly essential for proper functioning of body. And when "CHALA (movable or restless) GUNA" of vata increased in majja dhatu

this leads to the above Tics symptoms where vitiated vaat dosha makes changes in the normal functioning of the body.¹¹

Nasya Procedure :¹²

The individual is asked to lie on the back with a slightly elevated leg and the head is tilted back side by placing the small pillow below shoulders. Then a facial massage with lukewarm medication is done. Mild swedana with the hasta sweda is given and then the luke warm medication is instilled in both nostrils with the help of a proper instrument like a dropper. And the person is advised not to swallow the medication rather than spit it out .Once the Nasya procedure is completed a mild massage of the palms, soles, and shoulders is performed.

Nasya drug pathway:¹³

Nose → Shira → Reaches to Shringatak marma of head which is sira marma and formed by siras (blood vessels of nose, eye, ear and throat) → The given drug spread through above route and brings the dosh back from region above the neck → Promote normal physiological functioning.

Mechanism of drug absorption:¹⁴

In this various scientists have put forward many theories among which two theories are more popular

- a) Transcellular drug diffusion through membrane.
- b) Paracellular drug diffusion between the cells by vesicles carriers.

Action of drug:¹⁵

It also includes two pathways

- a) Vascular pathway:

Nasal cavity is the sub mucosa rich vascularised giving large surface for drug absorption by avoiding hepatic first pass metabolism.

- b) Neural pathway:

Drug delivery form the nose to CNS main occurs via olfactory neuroepithelim.

CONCLUSION

The Tourette syndrome has a very relative low prevalence and it is not that much easily known by parents by its symptoms. They neglect and leave but when severity of it is occurred then the stage of it may lead to irreversible condition. And when the condition is known early then above treatment modalities can help them along with other oral medicines. A quick and

effective treatment can be discovered with above road map which can create a new ayurvedic treatment protocol for managing the disease. The nasya only be used in vaat vikaras but in the scientific and developing world we can get a new direction to search new diseases and their treatment protocols. As we all know ayurveda treatment principles follow black box design for its research so we also need to focus on other medicines along with nasya karma. And by the following we can add new methods in available once. And at last it can be concluded that nasya can be an effective way to manage the Tourette syndrome (TICS) along with proper analysis of avastha and doshas and management with other medication.

REFERENCES

- 1) Davidson's Principles and Practice of Medicine By Stanley Davidson, Churchill Livingstone, Elsevier Science Limited.
- 2) Charak Samhita By Dr. Bramhanand Tripathi, Chaukhamba Prakashan, Varanasi
- 3) Astang Hridaya Samhita By Dr. Bramhanand Tripathi, Chaukhamba Sanskrit Pratisthan, Delhi
- 4) Textbook Of Pathology By Harsh Mohan, Jaypee Brothers Medical Publishers (P) LTD.
- 5) Sushrut Samhita By Kaviraj Dr. Ambikadatta Shastri, Chaukhamba Prakashan, Varanasi
- 6) Ayurvediya Panchhkarma Chikitsa By Acharya Mukandilal Dwivedi, Chaukhambha Sanskrit Pratishthan, Delhi
- 7) Vyaharik Panchkarma Vidnyan By Vd. Nachiket Vachasundar
- 8) Principles And Practice Of Ayurvedic Clinical Medicine By Dr. L. Mahadevan Sarada Mahadeva Iyer Ayurvedic Educational & Charitable Trust, Kanyakumari
- 9) www.google.co.in
- 10) Harrison's Principles Of Internal Medicine By Jameson, Fauci, Kasper, Hauser, Longo, Loscalzo.
- 11) Ayurveda For Beginners By Dr. L. Mahadevan, Sarada Mahadeva Iyer Ayurvedic Educational & Charitable Trust, Kanyakumari
- 12) Sarngadhara Samhita Of Pandita Sarngadharacharya By Brahmanand Tripathi, Chaukhamba Surbharti Prakashan Varanasi
- 13) Panchkarma Sanghra By Dr. M.K. Shamkuwar
- 14) <https://www.google.com/search?q=wikipedia&client=ms-android-oneplus-terr1-rso2&sourceid=chrome-mobile&ie=UTF-8>
- 15) Essentials of Medical Pharmacology By KD Tripathi, Jaypee Brothers Medical Publishers (P) LTD.