Role of *Brimhana nasya* in psychosomatic disorders

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**Abstract**

Psychosomatic means mind (psyche) and body (soma). The term “psychosomatic disorder” is mainly used to mean “a physical disease that is thought to be caused, or made worse, by mental factors.” The term is also used when mental factors cause physical symptoms but where there is no physical disease. For example, chest pain may be caused by stress and no physical disease can be found. The greed for wealth and our excessive efforts for it brings psychosomatic disorders. We find psychosomatic disorders as a result of modern lifestyle. The incidences of psychosomatic disorders are increasing due to changing lifestyle. These symptoms are due to increased activity of nervous impulses sent from the brain to various parts of the body. As per the Ayurvedic texts, the *tridoshas* are the main causative factors in the pathogenesis of any disease. In *Ayurveda*, detailed description is given about psychic (*Manasika*), somatic (*Sharirika*), and psychosomatic disorders (*Manodaihika Vyadhi*). Meanwhile, to overcome the root pathology involved in the manifestation of psychosomatic disorders, *brimhana (nourishment)* *chikitsa* occupies the prime seat in the line of treatment of psychosomatic disorder. *Nasya karma* is the main line of treatment in *Jatru urdhwa vyadhi* (diseases above the neck) which can be adopted in this disorder.

**Key words:** Brimhana Nasya, Manasika, Sharirika

**INTRODUCTION**

Psychosomatic disorders are caused by psychological imbalances or issues that a person may be experiencing in life; they are manifested as physical and biological illnesses. Despite their confusing nature, psychosomatic illnesses are not uncommon.[1] Suspicion of psychosomatic disorders occurs when physical symptoms for which there is no medical explanation. It is, therefore, of psychological disorders manifested by physical symptoms.[2] When all the possible medical causes of an illness have been ruled out, attention must be given to the possible psychological causes.[1] Psychosomatic disorders are a complicated type of disorders which are not easy to diagnose. Many cases remain undiagnosed because the basic reason behind all these disorders was stress and the patient was unaware of the fact that stress is creating such huge changes in his life without his will.

A psychosomatic disorder, by definition, is a stress disorder whose principal cause is psychological in origin, but its manifestations are predominantly observed in the body. Stress is a non-specific response of the body to any demand made on.[3] Such a response consists of a series of neurohumoral, endocrine, and metabolic changes with related physiological alterations involving entire body parts and systems though to varying degrees.[4] Normally, these stress-induced physiological changes are adaptive, compensatory, and self-limiting but when stressful conditions are frequent, intense, and override certain limits, these physiological changes become rather irreversible and pathological in nature.[5] Stress being the main cause of these disorders which is caused by over worrying. Dr. Edward Podolsky entitled “stop worrying and get well” has some of the chapter titles like - what worry does to the heart, high blood pressure is fed by worry, rheumatism can be caused by worry, worry less for your stomach’s ache, etc., which shows the importance of stress in causing various diseases.[6]
General symptoms of stress causing psychosomatic disorders include fatigue, exhaustion, and pain. Cardiovascular and gastrointestinal problems are also common. The birth of psychosomatic disorders resulting from the combination of several factors including biological, psychological, and social. The main psychosocial factors are as follows: Stress causing permanent organ dysfunction, vicious cycle of physical symptoms, leading to fear, and increased surveillance of these symptoms, often unconscious psychic conflicts (fear, rage, and anger) manifesting as physical symptoms. Indeed, a high prevalence of psychological symptoms and psychoneurotic personality traits has been identified in IBS patients, compared to healthy controls. Prolonged and aggravated muscle response under stress is the root cause of etiopathology of rheumatoid arthritis. Increased bronchoconstriction and mucosal edema are the principal factors in the pathogenesis of bronchial asthma. In Ayurveda, detailed description of psychic (manasika), somatic (sharirika), psychosomatic (manodaihiika vyadhis), and their treatment protocols is found. In somatic diseases, the psychological aspect cannot be neglected, similarly, in psychological diseases, the organic (somatic) affairs have given due consideration for its better management. Manasikabhava (psychic factors) plays an important role for the manifestation psychic and psychosomatic conditions. 

Ayurveda describes three categories of etiological factors, namely
1. Asatmendriyartha Samyoga,
2. Prajnaparadha,
3. Parinama.

A critical examination of the nature of these three categories of etiological factors would indicate an excellent classification of stress factors which are responsible for stress and psychosomatic disease. The Sushruta’s concept of Sakriyakala has also been recently studied by the author and his associates in the context of psychosomatic diseases. In the light of the nature of biological response, one may include the six Kriyakala’s within the above-mentioned four phases of psychosomatic disease as per following scheme.

1. Psychic phase - Sancaya
2. Psychoneurotic phase - Prakopa and Prasara
3. Psychosomatic phase - SthanaSamsraya and Vyakti

The psychic factors such as Kama (luster), Krodha (anger), Shoka (grief), Bhaya (fear), Chinta (stress), and Irshya (envy) are regulated by the body itself within physiological limit, which is defined as Prakruta Manasika-bhava, when this Bhava crossed the physiological limit termed as Manasika-Vikara or psychic disorders. Some examples of psychosomatic disorders are irritable bowel syndrome ulcerative colitis, gastric and duodenal ulcers anorexia essential hypertension, ischemic heart disease, etc. Charaka mentioned that the somatic and psychic disorders following one another occasionally occur together. These Sharirika (Somatic) and Manasika (psychic) disorders in long term associated with each other as somatic to somatic, psychic to psychic, somatic to psychic, and psychic to somatic. These references from Ayurvedic texts reflect that a great stress has been laid by Ayurvedists on the psychosomatic approach toward diseases. Therapies described for these types of disorders are of three kinds, namely Daivavyapashraya (spiritual therapy), Yuktivyapashraya (therapy based on reasoning, i.e. physical properties), and Satvavajaya (psychotherapy treatment by self-control). Spiritual therapies are incantation of mantras talisman, wearing of gems, auspicious offerings gifts, oblations, observance of scriptural rules, atonement, fast, chanting of auspicious hymns, obeisance to the gods, going on pilgrimage, etc., administration of proper diet and medicinal drugs comes under the second category. Withdrawal of mind from harmful objects constitutes psychic therapy. In Yuktivyapashrayachichitas, in case of brain-related disorders, targeting toward brain is the main hurdle. There is a strong relation between stress and our brain. Longstanding stress can affect cognitive function, including changes in learning, memory, and emotional well-being. To overcome this problem, any treatment which gives nourishment to the brain can be beneficial in this case. Nasal route is easily accessible and efficient route. Hence, nasal route for drug administration is preferred by modern medicine also which in other words is Nasya in Ayurveda. Hence, here, review is presented about action of Brimhana Nasya on psychosomatic disorders according to Ayurveda and modern science.

In Ayurveda, a suitable route of drug administration is identified mainly on the basis of regional propinquity of the site of pathology. Similarly, Nasya Karma which involves nasal route of drug administration can be taken as the best line of treatment in the management of cervical spondylosis as it is the nearest possible route of drug administration with which one can counter attack the site of pathology. Nasya karma is one of the therapeutic procedures of the Panchakarma, wherein the drug is administered through the nasal route. This is one of the Panchakarma procedures that not only alleviates the vitiated doshas but also causes complete eradication of the vitiated dosha and the disease. The Nasya karma especially exerts its effects on the urdhvajatrugata pradesha. According to Charaka Samhita, Nasya is the best treatment for shirorogas. As nose is gateway for shirah (head), medicine administered through it occupies various parts of the head and removes morbid doshas adherent to it. It not only removes doshas but also gives strength to organs, channels, etc., in the head so useful in healthy conditions also. Acharya Vagbhata has stated that, “Nasa hi shiraso dwaram” that is, the nose is the easiest and closest opening for conveying the potency of medicines to the cranial cavity. He is the first person to narrate the mode of action of drugs by Nasya karma. The drugs administered will reach the Shringataka marma and...
spread through the opening of the shiras of the eyes, ears, throat, and so on, to the head.[17]

Acharya Sushruta opines that the Shringataka marma is a sira marma, situated at the site of the union of the siras, supplying to the nose, ear, eye, and tongue.[18] Acharya Vagbhata defines the effect of Nasya as it acts on Skanda, Greeva, Mukha, and Vaksha and makes it healthy and strong.[19]

As the procedure of Nasya itself involves massaging and fomenting over maybe the marmas existing on the face and head, this also helps in the alleviation of marmaksobha and Vata shanama. The action of Nasya karma depends on the dravya used in it. Based on these, it is divided into shodhana, shamana, and Brimhama.[20] In Brimhama Nasya, drug used is Sneha, i.e. Shatavari ghee, medicated milk, niryas, mamsa rasa, etc. This treatment is mainly given in Vata type of disorders. It is beneficial to cure migraine headache, hemicranias, and dryness of voice, constriction of the eyes, defects of the vision, toothache, earache, tinnitus, and difficulty in speech, nervousness, anxiety, fear, dizziness, and emptiness.[21]

Brimhama Nasya provides nourishment to the shiroindriya and other organs and alleviates the vitiated Vata. Hence, it is useful in Vatayanya ailments,[21] thus highly efficient in psychosomatic disorders. Negative thoughts can be vanished by undergoing this treatment. It imparts strength to Hanu, Danta, Sira, Greeva, Trika, Bahu, and Vaksha.[14]

**DISCUSSION - PROBABLE MODE OF ACTION OF NASYA**[21]

**Modern Anatomical and Physiological Aspect of Nose**

The nose is connected through vascular system, nerve plexus of olfactory nerve, and ophthalmic and maxillary branches of trigeminal nerves to the brain.

**Neurological pathway**

It is concerned with olfactory stimuli. The olfactory nerve differs from other cranial nerves in its close relation with the brain. The peripheral olfactory nerves are chemoreceptor in nature. The olfactory nerves are connected with the higher centers of brain, i.e., limbic system, consisting mainly of amygdaloidal complex, hypothalamus, epitheliums, anterior thalamic nuclei parts of basal ganglia, etc., so the drugs administered through nose stimulate the higher centers of brain which shows action on regulation of endocrine and nervous system functions.

**Thus hypothalamus regulates**

1. Autonomic nervous system which is the major regulator of visceral activities.

2. Hormone synthesis due to direct contact with pituitary gland and hence responsible for integrating the functions of the endocrine system

**Regulation of emotional and behavioral patterns**

Hypothalamus together with limbic system participate in expression of rage, aggression, pain, pleasure and behavioral pattern etc. Thus directly helps in preventing various psychosomatic disorders.

**Diffusion of the drug**

Lipid-soluble substances have greater affinity for passive absorption through the cell walls of nasal mucosa. “The cilia of the olfactory cells and perhaps the portions of the body of the olfactory cells contain relatively large quantities of lipid materials.” It is a route of absorption of some nutrients and excretion of waste by body cells which are lipid soluble. Further, drug absorption can also be enhanced by local massage and fomentation.

**Vascular path**

Vascular path transportation is possible through the pooling of nasal venous blood into the facial vein, which naturally occurs, at the opposite entrance, the inferior ophthalmic vein also pools into the facial vein. “The facial vein has no valves.” It communicates freely with the intracranial circulation not only at its commencement but also by the supraorbital veins which are connected with the ophthalmic vein, a tributary of the deep facial vein, which communicates through the pterygoid plexus with the cavernous venous sinus. Such a pooling of blood from nasal veins to venous sinuses of the brain is more likely to occur in head lowering position due to gravity, the absorption of drug into meninges and related intracranial organ is a point of consideration.[21]

Nose is a highly vascular structure and its mucous membrane provides a good absorbing surface. Hence, Siddha Sneha, on their administration, spread along the nasal mucous membrane. An active principle along with Sneha gets absorbed inside the olfactory and respiratory mucosa and from there is carried to different places.[22] Sneha provides nourishment to the nasal structures and other organs of the head also. The networks of nasal blood and lymph vessels have many communications with those of the subdural and subarachnoid spaces. This fact is one of the important factors contributing to the extension of the Brimhana drugs from the nose into the cranial cavity.[14]

The myelin sheath is the first covering of the nerve fiber. Neurolemma is the second. The myelin sheath is composed of lipid material. The blood–brain barrier (BBB) is highly permeable for lipid substances and substances that are fat soluble. Therefore, these substances can pass easily through the BBB and can exert their actions. Certain lipids are used for providing energy to the nervous tissue. Some of the active principles may reach certain levels in the nervous system where they can exert their Vataghna property; brimhana
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Nasya provides nourishment to the nervous system and helps in removing the irritation. It may act as an anti-inflammatory agent also. On its nasal administration, it reaches different Shirogata indriya and causes Vata shamana and has Brimhana effect.¹⁴

According to Acharya Vagbhata, “Brimhanam shamantvev pitta anila syat cha (चुरूण शमनस्तव्व वयों: पितानिल स्यात् चै),” thus brimhana nasya alleviates vitiated vata and pitta.

The shringataka marma has been explained by recent authors as the middle cephalic fossa of the skull consisting of paranasal sinuses, meningeal vessels, and nerves. One can see the truth of the narration made by Vagbhata here - the drug administered enters the paranasal sinuses, that is, the Shringataka, where the ophthalmic vein and the other veins spread out. The sphenoidal sinuses are in close relation with the intracranial structures. Thus, there may be a so far undetected root between the air sinuses and the cavernous sinuses, establishing the transudation of fluids as a whole. The mentioning of the Shringataka in this context seems to be more reasonable.²⁴ Thus, through hypothesis:

**CONCLUSION**

The history of psychosomatic problem is as old as the Ayurveda as the history of human civilization. There are so many somatic diseases in which mental symptoms have been also described, whereas in the description of mental diseases, somatic characteristics have been mentioned.¹¹ The unwholesome conjunction of the sense organs with their objects (Asatmendriyarthasanyoga), intellectual blasphemy (Pragyapradha), and transformation (Parinama) - these are 3-fold causes of diseases (psychic, somatic, and psychosomatic). Proper utilization of the objects, action, and time is beneficial to the maintenance of normal health.¹¹ Ayurveda has considered the mental and physical diseases as two separate specialized subjects. However, no clear line of demarcation has been drawn between the mental and physical illness, and a flexible psychosomatic approach has been worked out. The main procedure Nasya, in which drug administered through nasal route should be done in psychosomatic disorders. Nasal medication is advocated in many mental disorders, it is considered a port for brain for drug delivery.³ Nasya is most convenient and has greater acceptance among the users due to their easy procedure, low economic cost, and minimum side effects. Intranasal delivery bypasses the BBB to target central nervous system, reducing systemic exposure of drug, thereby reducing the systemic side effects. It also bypasses the hepatic first-pass metabolism and drug can directly enter into the systemic circulation.²⁵ Stress and brain have a strong relation with each other. By providing nourishment to brain, stress can be eliminated from root and hence helps in preventing psychosomatic disorders. Hence, we can say that Ayurveda can be a promising alternative in psychosomatic disorders. Further, clinical trials are needed to establish a standard management of psychosomatic disorders.

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