

“A Review of Role of Nasya Karma in Gynaecological Disorders”

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Abstract: Nasya Karma is the specific treatment methodology in Ayurveda in which drug is administered through Nasal route. This particular type of treatment is mainly indicated for the disorders in the head and neck region. In present article the role of Nasya in Infertility as well as other gynaecological disorders is elaborated. Regularity in menstrual cycle, normality in quantity and duration of bleeding are the indicators of women's good reproductive health. Any deviation in this gives rise to various gynaecological problems such as menorrhagia, oligomenorrhoea, dysmenorrhoea, PCOD and Infertility. All the orchestra of menstrual cycle is under the control of Pituitary hormones which is situated at the base of brain. Nasa is considered as the gateway of Sirahi.e. Brain. Nasya helps to regulate hypothalamo-pituitary-ovarian axis and establishment of normal menstruation. Hence it is one of the best remedies as compared to modern hormonal treatment.

Keywords: Nasya, Gynaecological disorders, Hypothalamo-pituitary-ovarian axis

I. Introduction

Nasa i.e. Nose is considered as gateway of shirah (brain). In Ayurvedic classic the specific treatment methodology of administering drug through nasal route is mentioned which is called as Nasya. Hence drug administered through Nasa goes up to the brain and stimulates its functions. In modern science, it is given that the cell produce GnRH originate from the olfactory area and GnRH is a regulator of gonadotropin hormones. And all the orchestra of menstrual cycle is under the control of these gonadotropins secreted by pituitary. Here the effect of Nasya on regulation of menstruation and ovulation is explained.

Definition Of Nasya :

In context of Ayurveda, the word Nasya suggests the nasal route for administration of various drugs.

- According to Acharya Sushruta, medicines or medicated oils administered through the nose is known as Nasya. (Su.Chi.40/21,29).
- Arunadatta and Bhavaprakash opine that all the drugs that are administered through the nasal passage are called as Nasya.
- Sharangdhara and Vagbhatta also stated the same. (A.S. Su. 29/3) On this basis, one can say that Nasya karma is a therapeutic measure in which the medicated drug is administered through nasal route mainly to eliminate or extinguish the vitiated doshas situated in head and its constituent parts, curing the diseases of those parts. (Urdhvajatrugatavikaras).

Anatomical structures related to Nasya Karma:

- Shringatakarma formed by the union of siras (blood vessels) supplying to Ghrana (Nose), Akshi (Eye) and Jihva (Tongue) and injury to this marmawill be immediately fatal.
- Indu (on A.S.Su. 29) has opined that Shringatakais the inner side of middle part of the head i.e. "Shirasuantarmadhyam".
- Under the complications of Nasya karma Sushrutannoted that the excessive eliminative rhine might cause Mastulungastrav (flow of CSF out of the nose) (Su. Chi. 40/40) This suggests the direct relation of Nasal pathway to brain.

Mechanism of Action of Nasya:

Considering above this points, the mode of action of Nasya karma can be understood as follows (A.H.Su, 29/2) Drug through nasal route (i.e. gateway of head) reaches the Shringataka Marma (sira Antarmadhyam). Then it spreads through the Siras of nose, ear, eye and tongue. In this way it reaches in Sira (head) then it scratches the morbid Doshas of Urdhwajatrugata i.e. disease causing elements.

According to Modern point of view.

Before going to the mode of action, we will see the relation of GnRH, Hypothalamus and olfactory area. The cells that produce GnRH originate from the olfactory area. The GnRH neurons appear in the medial olfactory placode and enter the brain with the nervus terminalis. A cranial nerve that projects from the nose to the septal- preoptic nucleus in the brain.

Control of GnRH Pulses.

Normal menstrual cycles require the maintenance of the pulsatile release of GnRH within a critical range of frequency and amplitude. Pulsatile rhythmic activity is an intrinsic property of GnRH neurons, and the effect of various hormones and neurotransmitters must be viewed as modulating actions. The current concept is that the biogenic catecholamines modulate GnRH pulsatile release. The probable mode of action of catecholamines is to influence the frequency (and perhaps the amplitude) of GnRH discharge. Thus, pharmacological or psychological factors that affect pituitary function probably do so by altering Catecholamine synthesis or metabolism and thus the pulsatile release of GnRH.

As we know that the root cause of gynaecological disorders is; there may be inhibition or irregularity of pulsatile release of GnRH.

On the basis of fractional stages of *Nasya* karma procedures, we can draw certain rational issues that are as follows.

A) Effect on neuro-vascular junction :

Specific posture during *Nasya karma*, like the lowering of the head, elevation of lower extremities, fomentation of face seems to have an impact on blood circulation of the head and face. The efferent vasodilator nerves, which are spread out on the superficial surface of face, receive stimulation by fomentation and may increase the blood flow to the brain i.e. momentary hyperemia. According to Chatterjee, approximately 22% of total dilatation of cerebral capillaries, caused by facial efferent stimulation will lead to 150% blood inflow (Chatterjee 1980) Considering above description the effect of *Nasya* on neuro-vascular junction can be understood as follows mainly by Cushing's reaction. So, it can be stated that the mode of action of *Nasya* karmas has a definite impact on central neurovascular system and likely to lower the blood brain barrier, which makes possible the absorption of certain drugs in the brain tissue.

(B) Effect at Neuro-Endocrinal Level :

Effect at neuro-endocrinal level can be explained by considering certain basic understanding like

- The peripheral olfactory nerves, which are chemo-receptor in nature, differs from other cranial nerves (except optic nerve in its nature) and it is phylogenetically closely related to brain. It can be considered as the fiber tract of brain. (Brobeck 1980)
- It is well known that the terminal adjacent nerves, which run along the olfactory nerve, are connected with limbic system of brain including hypothalamus -Hamilton 1966.
- Hypothalamus is responsible for integrating the function of the endocrine system and nervous system.
- The experimental stimulation of olfactory nerves causing the stimulation in certain cells of hypothalamus.

(C) Effect at neuro-psychological levels :

- Effect of *Nasya* at neuro-psychological levels stand upon the facts discussed previously that the terminal adjacent nerves running along with the olfactory nerves are connected with limbic system of brain including hypothalamus.
- Certain drug administered through nose may have an impact on immediate psychological behaviour by acting on limbic system through olfactory nerves as the limbic system is also concerned with behavioural aspects of human beings, besides control over endocrine secretions. These things certainly support the recommendation of *Nasya* by *Ayurvedic* scholars for mental disorders like *Apasmara* and *unmada*.

Way of absorption of drug

Vascular path :

- Vascular path transportation is possible through the pooling of nasal venal blood to the facial vein, which naturally occurs. At the opposite entrance, the inferior ophthalmic veins also pool into the facial vein.
- *Shringatakarma*, mentioned by Acharya Vagbhatta can also be well explained by above description.

Lymphatic path :

Drug can reach directly into the C.S.F. through lymphatic pathway.

On this basis, it can be stated that ancient scholars of Ayurveda were aware of the role of lymphatic path in direct absorption into brain from nose.

Importance Of Post Nasya Massage:

Post *nasya* massage, recommended by ancient *acharyas*, is as important as massage before *nasya*. The texts have recommended post *nasya* massage on the frontal, temporal, maxillary, mastoid and neck (*manya*) region. A comfortable massage on the above regions may help to subside the irritation of the somatic constriction due to heat stimulation and may also help in removing the slush created in these regions.

According to *Sushruta*, *manya* is a *marma* existing in neck on either side of trachea (*Su.Sha.6/29*), which likely corresponds to the carotid sinus of neck on the bifurcation of common carotid artery. The receptors called baroreceptors are situated here and manipulation on it may have a buffering action on cerebral arterial pressure. (Best and Taylor, 1988) Pressure applied on the baroreceptors is also found to normalize the deranged cerebral arterial pressure. - (Hejmadi S. 1985) On the basis of the foregoing discussion we can state that the procedures, postures and conducts explained for *nasya* karma are of vital importance in drug absorption and transportation. The facts discussed here are also convincing us about the definite effect of *nasya karma* in the disorders of central nervous system, endocrine system and some psychological disturbances.

II. Conclusion

From the above references it can be said that *Nasya* is one of best treatment for treating gynaecological disorders.

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