



NASAPANA in different diseases: a critical review

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ABSTRACT

Nasa (nose) comes under the *panchajnanendriya*, and also used for the route of drug administration. The word '*Nasya*' means being in the nose or the things beneficial to nose. *Nasa* is said to be gateway of head therefore, the medicine used by this passage reaches to brain and eliminate the morbid dosha causing the diseases. This route, is not only used in *Urdhwajatru gata vikaras*, but also in systemic disease like *Kampa vata*, *Hikka* can be utilised. So, the '*Nasya Karma*' is one of the main *Panchkarma* procedure by which multiple actions can be achieved by using different drugs and dosages. *Nasya* is categorized into many types according to different *acharyas*. *Nasapana* is one of the hidden procedure in *Nasya karma*, where the route of administration of medicine is same as *Nasya* i.e., Nose, but here given medicine is ingested via going through nose. So, it shows both the effects of *shodhana* and *shamana*. As, it is explained by few authors with some references and researches were done to see its efficacy in recent time. So, various text books and journals were searched and screened to get the details regarding the different studies on *Nasapana*. There is difference seen in formulation of drugs used for *Nasapana*, some are using *hingu* as *prakshepa dravya* and others have used *Sneha (taila, gritha)* in *kwatha*. *Nasapana* is mainly indicated for *Vata vvyadhi*. It was analysed that *Nasapana* is effective treatment modality in mentioned diseases i.e, *Apbahuka*, *Manyastambha* with specific drug combination and when it is compared with *Nasya Karma*, it showed better result.

Key words: *Nasapana*, *Nasya Karma*, *Apbahuka*, *Manyastambha*.

INTRODUCTION

Panchkarma consists mainly of five *karmas* but in a broad way it includes many procedures with different modalities and uses in numerous diseases. When it comes to five main procedures i.e., *Vamana*, *Virechana*, *Niruha Basti*, *Anuvasana Basti* & *Nasya*, here *Nasya* is the only route where medicine is given via nasal route, whereas the other *karma* includes medicament through oral or anal routes. It is told that it has the

direct connection between the nose and head, so if physician needs to administer the medicine to the head part, then *Nasa* could be the route of choice. It shows the big importance to the nasal passage in administering the medicament. In some places, *Nasya* is given first place in the sequence of *Panchkarma* for e.g., in *Charak Samhita, sutra sthana* second chapter i.e., *Apamarga tanduliyam*. It can be utilized in many different conditions in which medicine is not consumed orally.

‘*Nasa hi Shirso Dwaram*’¹ i.e., *Nasa* is considered as doorway of *Shiras* and it communicates with eyes, ears, throat, etc. by minute channels. There are so many openings in the *Sirsas pradesha* like *Akshi, Karna, Mukha* and *Nasa*. In this all, only *Nasa* has the direct connection with the head or brain, on the same way it has direct correlation with all the five *Indriyas* (*Akshi, Karna, Jihwa, Twaka* and *Nasa*). It is also told that if one has to go for any *Samshodhana* of *Urdwajatrugata*, he should use the nasal passage. This clearly shows the importance and involvement of nasal route to the body. Finally, which shows the significance of procedure which is used through the path of *Nasa*.

Nasal mucosa is highly vascular, and the blood supply to this area has direct contact with cavernous plexus. Cavernous plexus is related to arterio-venous communication of nasal cavity. Another vital part linked is Facial vein, which is directly connected to ophthalmic vein and then deep venous sinus inside the cranial cavity, the cavernous sinus. Facial vein does not have any valve in its course, whereas the cavernous sinus links to an arterio-venous communication of the extra Dural circulation. So, there could be a possibility of reverse circulation of *Nasya dravya* which is absorbed by highly vascular mucous membrane of nasal cavity to the circulation of brain by using the ethmoidal artery and plexus.

The drug administered through nose reaches the brain and then either it eliminates the morbid *dosha* or nourishes the area. Several *Kalpans* like *Swarasa, Kalka, Kwatha, Choorna, Sneha* etc. are explained and used for the treatment of *Urdhawa jatru gata vikaras* and some systemic diseases such as *Kampvata, Hikka* etc. Different Acharya classifies *Nasya karma* in very different ways and we can understand them accordingly. Here we can say that classification of *Nasya* is mainly on the basis of its function, dose, drug *Kalpans* and it mainly includes *Rechana, Tarpana* and *Shamana*. There is not any direct reference regarding *Nasapana* in the *Bruhtrayi* but we can understand it as, one of the procedures, which means drinking of medicated ghee, oil or *Kwatha* through nose. It is explained by different *Acharyas* in some context. Few words for *Nasapana* are used like “*Nasyanipito*” “*Pibennasyam*” etc. Here, the word *Nasyanipito* has two meanings i.e., *panna* and concentrated form of *Kawtha*. *Pibennasyam* can be understood as drinking via nose. Mainly it is indicated in *Vata Vyadhi Chikitsa*, specifically in *Apabahuka, Viswachi, Pakshagata, Ardita* and *Manyastamba* in *Chakradutta*. Different studies are already done and few of are still going on with *Nasapana* in different diseases, basically it is chosen for the *Urdwajatrugata vikara*. Here an attempt is made to compile and analyze few researches carried out on *Nasapana* in different disease to ascertain the modality.

Aim: To study effect of *Nasapana* in different disease.

Objective: To study the different combination of medicine used for *Nasapana*.

To understand the mode of action of *Nasapana*.

MATERIAL AND METHODS

Source of data- Mainly the data has been collected from various Publications, Ancient Scientific literature and subject related information available online like PubMed etc. Then all the data is studied, organized, compiled, compared and analysed. Researches conducted on *Nasapana* are taken for the study.

Historical review: Description of *Nasapana* is not seen in *Samhita kala*, it was explained by *Chakrapani*, when he was discussing about management of *Bahusheersagata vata*²i.e., *Taila* prepared from *Masha* and *Saindhava* is used for *Nasya*.

Following references on *Nasapana* has been present:

s.no.	Samhita	Drugs	Disease
1.	Chakradatta ^{3,4}	<i>Masha baladi kwatha</i> with <i>hinga</i> and <i>saindhav</i> . <i>Dashmool masha baladi Kwatha</i> .	<i>Vata-vyadhi-chikitsa</i> (<i>Pakshagata, Ardita, Karna nada</i> and <i>Manyastamba</i>). <i>Avabahuka, Viswachi. Trishna</i> .
2.	Bhavaprakasha ⁵	<i>Dashmoola bala masha Kwatha</i> with <i>Taila</i> .	<i>Vishwachi</i> and <i>Avbahuka</i> in <i>Vata Vyadhi Chikitsa Adhyaya</i>
3.	Vangasena ^{6,7}	<i>Dashmoola bala masha kwatha</i> with <i>taila</i> . <i>Atmagupta bala masha sunthi</i> with <i>saindhava</i> .	<i>Vata Vyadhi Chikitsa, specially</i> in <i>Vishwachi</i> and <i>avbahuka</i> . <i>Vata Vyadhi Chikitsa, specially</i> in <i>Pakshaghata, Shiroroga, Netraroga</i> .
4.	Bhaishajya Ratnavali ⁸	<i>Dashmoola bala masha kwatha</i> with <i>taila</i> .	<i>In Avbhauka</i> and <i>Vishwachi</i> .

The above said references are scattered in *Samhitas* and still no detail description of the procedure were found. Mainly *Nasapana* is explained in *Vata vyadhi* with different *Yogas* like *Dashamoola Bala Masha Kwatha*, *Baladi kwatha* and *Masha Baladi Kwatha*. Some has added *Sneha* in combinations whereas some has mixed *hingu* and *saindhav lavana*.

Review on researches:

Nasapana* and *Nasya* in *Apbhavuka⁹ -this study was conducted on 30 patients diagnosed with *Apabahuka* and divided in to two groups A and B, with 15 patients in each group. *Ama pachan* with *Panchkola choorna* was given for both the groups, then in Group A, administration of *Nasya* (*Navana Nasya*- with dose of 8-16-32 *bindu*) with *Laghu masha taila* for 14 days on alternate days. In Group B, administration of *Nasapana* (30-40ml) with *Prasarini ksheera Kashaya* for 14 days on alternate days. Total duration of treatment was 28

days, with Follow up period of 30 days. When overall effect of procedure was seen, it showed 93% marked relief in 14 patients in *Nasapana* group where as in *Nasya*, 13.33% marked result in 2 subjects and with moderate result in 11 subjects 73.33%. Result of *Nasapana* was highly significant in relieving the symptoms of *Apbahuka*. It helps in relieving symptoms like *Shola* and *Stambha* and hence improve the functional ability.

Another study¹⁰ with 30 patients of *Apbhauka* were taken and divided in to two groups. Both the groups were given *Panchkola choorna* for *Ama Pachana*, *Jambeer Pinda Sweda* and *Shamana Aushadh* as *Yograjaguggulu* with *Prasarniyadi ksheera Kashaya* as *Anupana*. Difference in both the groups was the *Panchkarma* procedure, Group A was given *Nasya (Marsha Nasya)* with *Maha Masha Taila* whereas Group B was given *Nasapana* (25ml for each nostril) with *Dashmoola Bala Masha Kashaya* for 7 continues days. Total duration of treatment was 48 days, with follow up period of 2months.

In this study 10drops of *Mahamasha Taila* and *Gogriha* is added to *Nasapana Kashaya* preparation.

During performing *Nasapana*, patient usually develop cough, headache, watering of eyes and throat pain. Since above conditions were temporary seen. It was concluded that both *Nasya* and *Nasapana* are definitely effective in *Apbhavuka* but '*Nasapana* was more effective than *Nasya*'.

***Nasapana in Pakshaghta*¹¹**- this was a single case study, where patient was presented with chief complaints of weakness and pain in left side of upper limb and lower limb, slurred and difficulty in speech, disturbed sleep, difficulty in movement of left side of upper limb and lower limb since 2months. Diagnosis was made according to Ayurveda was *Pakshaghata* which comes under *Vatavyadhi*. While reviewing *Nasapana*, it is mainly explained in *Vatavyadhi*, and has direct reference for *Pakshaghata*. So here *Nasapana* with combination of *Mashabaladi Kwatha* with dose of 50 ml in each nostril, added *Prekshepa* of *Hingu* and *Saindhav lavana* was given for 7 days. There was marked improvement seen in the pain (VAS scale from 2 to 1) and weakness in left side of upper limb and lower limb. Significant improvement in range of movement of joints was also seen i.e., flexion from 100° to 165° in left upper limb and 46° to 50° in lower limb, extension from 25° to 35° in upper limb and 18° to 20° in lower limb, adduction from 40° to 45° in upper limb and 16° to 18° in lower limb and in abduction from 95° to 145° in upper limb and 18° to 38° in lower limb.

Pakshaghata is a disease which make patient disable even for his daily routine work, so this study has tried to check the improvement in quality of life after *Pakshaghata*. There was marked improvement seen in symptoms like pain, general debility and movement of limbs, and other symptoms i.e., speech, sleep and weakness were improved moderately. Mild improvement was seen in gait also. By overall effect, patient can manage the daily routine work normally without taking external support.

***Nasapana and Nasya in Manyastambha*¹²**- study was conducted on 40 subjects, diagnosed with *Manyastambha* and separated into two groups. *Ama pachana* with *Shaddharana Yoga* and *Shamana Chikitsa* as *Vyoshadi Guggulu* were given for both the groups. *Nasya* of *Bringaraja Taila* for 14days on alternate day were administered in Group A where as in Group B, *Nasapana* was administered with *Mashabaladi Kwatha* for 14days on alternate day. Dose was decided on the basis of *rogbala* and *rogibala*.

This study showed that *Nasapana* is more potent than *Nasya*, as drug used for *Nasapana* was *Mashabaladi Kwatha* which do the *Kaphavatahara* action. So, it was concluded by the study, in *Kapha Avarana* condition and in acute stages of *Manyasthambha*, *Nasapana* is more effective whereas *Nasya* is effective in *Dhatukshaya* condition in *Manyasthambha*.

By Statistical analysis, both groups have almost equal results, while comparing percentage wise relief and clinical presentation, there was speedy recovery seen in *Nasapana* group. This shows its instant effect and can be useful in acute conditions of *Manyasthambha*.

Observational study on *Nasapana*¹³- in this study total 50 patients, diagnosed with *Ardita*- 07, *Manyastambha*- 4, *Pakshaghata*- 11, *Insomnia*- 4, *Avabahuka*- 13, *Kampavata*-5, *Vishvachi* – 5, Slurred speech-3, were taken and *Mashabaladi Kwatha* (50-300ml) for *Nasapana* was given for 7 or 14days. This study was taken for observing the dosage of *Nasapana*, preparation of medicine (*Kwatha*), about dose of *Prakshepa* drug, temperature of *Kwatha* while administering it, efficacy of *Nasapana* on diseases, and any complications or side effects.

While observing the *Samyaka lakshana* of *Nasapana*, he has considered *Samyaka laskshan* of *Nasya* as of *Nasapana*. In this study, 100% patients were seen with *Vikaropasamana* (decrease of disease), *Manah sukham* (feeling of wellness) was observed in 90% and *Sukh swapna* (good sleep) was found in 80% of patient. There was appearance of *Shirolaghava* (lightness of head) and *Akshi laghuta* (decreased heaviness of eye) in 70% of patients. Other symptoms like *Bala prapti*, *Swara vishudhi*, *Indriya Prasad* and *Urolaghava* were also observed with satisfactory percentage.

There was no complication seen in any case and severity of disease was reduced significantly in all the patients. It was concluded that by using proper SOP of *Nasapana*, patient with age of 16-62 years of either sex, *Mashabaladi Kwatha* with dose of 50ml-300ml (tolerable according to patient) in following increasing dose till the maximum for 7 or 14 days was effective and with no side effect.

DISCUSSION

As different studies have been conducted on *Nasapana* with different diseases, with different combinations of drugs.

s.no.	Disease	<i>Nasapana</i> drug	Dosage	Days
1.	<i>Apbhauka</i>	<i>Prasarini ksheera Kashaya</i>	30-40ml	14days, alternate
2.	<i>Apbhauka</i>	<i>Dashmoola Bala Masha Kashaya added Taila and Ghrita</i>	50ml (25ml in each nostril)	7days
3.	<i>Manyasthambha</i>	<i>Mashabaladi Kwatha</i>	According to	14days,

			<i>Rogabala</i> and <i>Rogibala</i>	alternate
4.	<i>Pakshaghata</i> (single case study)	<i>Mashabaladi Kwatha</i> , with <i>Hingu</i> and Rock salt as <i>Prakshepa</i>	50 ml to each nostril	7days

Nasapana and *Nasya* procedures have route for administration of medicine i.e., nose (nasal pathway) in common. *Nasya Karma* simply means nasal administration of drug which is expelled out through mouth, whereas in *Nasapana* given medicine is swallowed and ingested. As *Nasapana* is not explored much compared to *Nasya*, which is already proven by many researchers and one of the main Karma of *Panchkarma*. So, studies mainly conducted to see effect of *Nasapana* compared with *Nasya*, and it showed in above mentioned studies that *Nasapana* has been more effective than *Nasya* in different diseases.

Many researches used *deepana -pachana* before starting *Nasapana*, it helps in *Agni deepiti* and *Amapachana / Doshas pachana*. Using of *deepana -pachana* mainly depends on ama conditions, sometime procedure can be done without these two modalities according to presentation of disease.

Generally, *Kapha vata shamaka* or *Vata shamaka* drugs are explained and used, but some preparations add *Hingu* and *Saindhav Lavana* as *Prakshepa*. These drugs have *Tikshana guna* which irritate the nasal mucosa and increases the blood circulation of the brain. Then provocation of *dosha* takes place due to irritating effect of drug, so accumulated morbid doshas are expelled out from the small blood vessels. Finally, these morbid *dosha* are expelled out as the nasal discharge, tears and saliva which helps to eliminate the *Avrita Kapha* and do the normal *Gati* of *Vata*.

The mode of action of *Nasapana* will be both *Shodhana* and *Shamana* i.e., by removing accumulated morbid *doshas* it performs *Shirovirechanic* action and after that it is swallowed and ingested, goes in gut and do the *Shamana* effect.

By adding *Taila* and *Ghrita* to *Mashabaladi Kwatha* and *Dashmooladi Kwatha*, absorption of medicine is better. Nose has mucosal membrane which is rich in vascular structure that provides good absorbing surface. Drugs which are water soluble remain on the upper airway tissue whereas fat-soluble drugs are more prone to reach towards distal airway. Hence using *Yamaka Sneha*, it crosses the blood brain barrier also follow the systemic pathway to reach the brain. It also carries the active principle of *Kawtha* which has several effects like *Vatagna*, *Brihmana*. So *Nasapana* may be used as potential drug route for treating the Systemic diseases like *Pakshaghata*.

Here, *Nasapana* is used mainly in *Vavatavyadhi* e.g., *Apbhauka*, *Manyasambha*, *Pakshaghata* etc., so general rule of *Vatavyadhi* is applied to all these diseases, to see whether it is *Dhatuksayajanya* or *Margavaranjanya*. So, the drug for *Nasapana* is decided according to that.

There will be two cite for action of drug; one is nasal mucosa and another is intestinal villi.

Mode of action of *Nasapana* in nasal mucosa is almost same as *Nasya* karma but difference in dosage makes its efficacy more. As there is large dosage, contact time is more which increases the rate of absorption.

When medicine is ingested, it goes into the gut. There, it is absorbed by enterocytes and the end product is absorbed by villi in the intestine which is connected to the lymphatic and circulatory systems. So, after absorption of drug by villi, it enters into the circulatory system and fat-soluble drug goes into lymphatic system. It has further metabolised in liver via portal vein, and thereby do the *Shamana* effect.

Kashaya Kalpana also have some basic properties like *Pachana*, *Deepana*, *Shodhana*, *Shamana*, *Tarpana*, *Kledana* and *Shoshana*. So, drugs used for *Kashaya* in *Nasapana* can be used according to disease for achieving the specific effect.

Advantages of *Nasapana* over *Nasya*- *Nasya Karma* is already established and effective procedure in *Panchakarma*, but when it is compared with *Nasapana*, basic difference is seen with dosage. All preparations are in *Kashaya* form for *Nasapana* with large dose as compared to *Nasya* dosage. Hence when large dose in *Kashaya* is given, definitely has more residence time for *Aushadha Dravya* and thus there is better nasal drug absorption.

Mainly researches are done on *Manyastambha*, where the disease is related with impingement of the cervical nerves or cervical Vertebrae's. Or In Ayurveda it can be correlated with the *Manyagata vyadhi*, where the pathology is somewhere related to *Manya* or the cervical to neck region. A slight modification in internal usage in the form of *Nasapana* can give combined effect of *Nasya* as well as *Pana* and may be more beneficial. As per my understanding it may activate the nerves ending of the nasal mucosa, which further activates the brain tissues to overcome the disease. Also, the same Medicine is ingested by the patient which further leads to the *Shamana* effects as of orally administered drugs. Its main significance is to cut short the time or frequency of multiple medicament administrations i.e., first through nose then orally. This single procedure can save the time as well it gives more benefits then the any single procedure of *Nasya* or *pana*.

As per available references for *Nasapana*, it is indicating in few forms of disease but again it can be used in many of the disease by choosing the appropriate kind of medicine as per the involvement if disease or the area of action or we can say as per the pathology of the disease. We can also follow this procedure as the *Pradhan karma* in many of the disease like already mentioned like *Apabahuka* and *Manyastabha*, by administering proper *Poorvakarma* as per need of the patient. It could also be used as *Shamananga* procedure in many of the disease of *Urdwajatru*, where *Poorvakarma* is not mandatory. It could be more beneficial to the patient those who can't withstand the *Samshodhana* procedure. It could be the procedure which is the connecting link between the *Samshodhana* and *Shamananga chikitsa*. On the behalf of this *Nasapana*, we can also modify some of the typical procedure of *Panchakarma*.

CONCLUSION

By reviewing study, it can be concluded that *Nasapana* is effective mainly in *Manyastambha* and *Apbahuka*. A slight modification in internal usage in the form of *Nasapana* can give combined effect of *Nasya* as well as *Pana* and may be more beneficial. This procedure can also be modified on the behalf of few factors such as availability of drugs, *desha*, *kala*, *rogi* and *roga bala* etc. It can be used alone as the *ekala chikitsa* or it can also be used along with other modalities of *Panchakarma* again depends upon the above-mentioned parameters. Which finally makes the *Nasapana* a broad term treatment procedure. Some of the researches are already done over it and some of the researches are going on, that means it could open some of the new doors towards the treatment possibilities.

While performing *Nasapana* procedure, there is strictly need to follow the SOP, to get the result and avoid complications. As no one has reported any kind of complication yet. Still more studies are needed to evaluate the efficacy of *Nasapana* like *Pakshaghata*, *Ardita*, *Trishana* etc.

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