An observational study on Standard Operating Procedure (S. O. P.) of *Nasapana*

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ABSTRACT: In Panchakarma, *Nasya* plays an important role in treating various diseases affecting *Urdhwajatru* (the part of the body above the shoulders) and the Central Nervous System. Human beings are considered to be in the form of *Urdhamulam Adhaha-shaka* where proper irrigation of the *Moola* (root) will sustain the *Sakhas* (branches) in a healthy manner. There are different types of *Nasya* being described in this context. *Nasapana* is one such related procedure in which the medicines are introduced through the nasal pathway. Not many references are available in classics as well as contemporary literature regarding the same. In the absence of such references, following a Standard Operating Procedure (SOP) is required to demonstrate and replicate its safety cum efficacy. An observational study was done on 50 patients suffering from various diseases treated with a SOP developed on *Nasapana*. The dose, methods, sign and symptoms of *Nasapana*, complications and suitability of the same were studied in detail. Data related to patient, disease condition etc. were collected and observed for the safe execution of the procedure. Not a single case of complication was noted, but, in all patients the severity of disease got significantly reduced. It can be concluded that this SOP may be followed for doing *Nasapana* procedure.

Keywords: *Nasapana*, Nasal Administration, *Nasya*, Panchakarma

Introduction-

*Nasa* (nose) is the doorway to the brain, to the consciousness and in a way connects the external environment with the brain. Acharya Charaka substantiates this by stating that *Nasa hi Shirso Dwaram¹*. *Nasya* is one among the procedures of *Panchakarma*, where medicines are introduced via Nasal route. The medicines maybe in the form *Kwatha, Swaras, Kalka, Sneha* etc. This is very effective in diseases affecting *Urdhwajatru* (the part of the body above the shoulders) and also in many types of nervous system disorders. *Nasya* is of different types, *Rechana, Tarpana* and *Shamana* are the basic classification of *Nasya*. *Nasapana* is a similar but different procedure in which the medicines are also introduced through the nasal pathway. The basic difference is that, in *Nasya* the medicine is introduced through the nose and is expelled out through the mouth, and in *Nasapana* the medicine introduced is ingested. We can find some references about *Nasapana* in Chakradutta and Bhavaprakasha. Other than this, not many references are available in classics as well as modern literature regarding *Nasapana* and the procedure is practice oriented throughout the country. Under such a scenario, following a Standard Operating Procedure (SOP) is very much required. This helps in demonstrating and replicating the safety cum efficacy of the procedure without any ambiguity. Also this helps in preventing *Atiyoga, Ayoga* and to get
optimum effects in a systematic manner with the help of a predetermined protocol. Here an observational study was done on 50 patients suffering from various diseases treated with a SOP on Nasapana.

**Materials and Methods**

The current study was done under following heads:

1. Literary Review
2. Observational study

**Literary Review**

All the available classical books, modern literature and reputed journals were vetted to know about the references about Nasapana. There are no references of Nasapana found during Samhita-kala. It came to limelight during the period of Chakrapani, in the context of Bahusheershagata-vata he has commented that Nasya with Taila prepared from Masha and Saindhava is beneficial in its management. In Chakradatta, Vata-vyadhi-chikitsa, Nasapana is stated in management of Avabahuka, Viswachi, Pakshagata, Ardita and Manyastamba. But the detailed description of the procedure is not found there. Yogas like Baladi-kwatha, Masha Baladi Kwatha, Dashamoola Bala Masha Kwatha are mentioned. Nasapana is the specialty of Chakradatta and which may be considered as a modified procedure of Nasya. It is indicated by Chakradatta also in Trishna treatment (C.D.16/18) & Manyasthambha (cervical spondylosis) treatment (C.D. 22/23-24). In Bhavaprakasha, Baladi Kwatha is mentioned in the management of Sheershagata Vata in Vata Vyadhi Chikitsa Adhyaya. Ushapana, a similar procedure is also mentioned by Bhavaprakasha. The benefits of Ushapana are obtained if one can drink about three Prasrita (300 ml) of water through the nose instead of mouth. Its positive effects are cited as follows:

Vigata Ghana Nishithe Prataruthhayya Nityam,
Pibati Khalu Naro Yo Ghranarandhrena Vari
Sa Bhavati Matti Purnaschakshusha Tarkshyatulyo,
Vali Palita Vihinah Sarvarogairvimuktah (B.P. Pu. 5/317).

In Vata Vyadhi Chikitsa, Vangasena had mentioned the same Yogas for Nasapana; he had specially mentioned Dashamoola Kashaya for managing Pakshagata.

The following indications and contraindications are compiled from textbooks and from clinical practice.

**Indications – Curative aspects**

<table>
<thead>
<tr>
<th>Ardita (facial palsy)</th>
<th>Viswachi (brachial neuralgia)</th>
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</thead>
<tbody>
<tr>
<td>Pakshaghata (hemiplegia)</td>
<td>Trishna (excessive thrust)</td>
</tr>
<tr>
<td>Avabahuka (frozen shoulder)</td>
<td>Anidra (insomnia)</td>
</tr>
<tr>
<td>Manyastambha (cervical spondylitis)</td>
<td>Gadagada-vak (slurred speech)</td>
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</tbody>
</table>

**Preventive Aspects**

<table>
<thead>
<tr>
<th>Vali (wrinkles)</th>
<th>Shotha (edema)</th>
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</thead>
<tbody>
<tr>
<td>Palita (gray hair)</td>
<td>Rasayana (rejuvenation)</td>
</tr>
<tr>
<td>Pinasah (rhinitis)</td>
<td>Budhi prasadana (brighten intellect)</td>
</tr>
<tr>
<td>Swarabhanga (hoarseness of voice)</td>
<td>Chakshusya (improves eyesight)</td>
</tr>
<tr>
<td>Kasa (cough)</td>
<td>Sarvarogairvimuktah (relief from all diseases)</td>
</tr>
</tbody>
</table>
Contraindications-

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconsciousness</td>
<td>Bala (child)</td>
</tr>
<tr>
<td>Pitasneha (after intake of Sneha)</td>
<td>Garbhini (Pregnancy)</td>
</tr>
<tr>
<td>Undergone any Panchakarma Procedure</td>
<td>Lung Disorders</td>
</tr>
<tr>
<td>Dushta Pratishyaya (Infective Rhinitis)</td>
<td>Cardiac Disorders</td>
</tr>
<tr>
<td>Ajirna (Indigestion)</td>
<td>Uncontrolled HTN</td>
</tr>
<tr>
<td>Mandagni (low digestive power)</td>
<td>Nasal Polyp</td>
</tr>
<tr>
<td>Adhamana ( tympanitis)</td>
<td>DNS</td>
</tr>
<tr>
<td>Hiccough</td>
<td>Sinusitis</td>
</tr>
<tr>
<td>Allergic Rhinititis</td>
<td>Pharyngitis</td>
</tr>
<tr>
<td>Sever Deglutition</td>
<td>Tonsillitis</td>
</tr>
<tr>
<td>Nausea</td>
<td>Any infection or inflammation of Nasopharynx</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Esophagitis</td>
</tr>
</tbody>
</table>

Observational Study:
Total of 50 patients were selected who were undergoing Nasapana. They were given Nasapana as per S. O. P. developed in Dept. of Panchakarma, IPGT&RA, Jamnagar and the assessments were done.

Nasapana S.O.P:
Poorvakarma (Sambhara-sangraha and Patient preparation)

Materials required:
1. Nasal Douche/Neti pot – This has a basic design like a pot and with a straw like tube attached to it. Neti pots are typically made of metal, glass, ceramic or plastic. They sometimes come with a handle on the opposite side.
2. Nasapana Yoga- Masabaladi Kwath was used here. The ingredients are Masa (Vigna radiata- Black gram), Bala (Sida cordifolia), Aatmagupta (Mucina prurita), Rasna (Pluchea lanceota), Aswagandha (Withania somnifera), Eranda (Ricinus communis), Kattruna (Shukashimbi- Mucuna pruriens) each in equal quantity in the Yavakuta (coarse powder) form, Hingu extract of the Ferula narthex and Saindhava (Rock salt) for Prakshepa (excepients)
3. Other items: Balatalia (oil of Sida cordifolia) for Urdhavajatru Abhayanga (mild massage), Towel, steel vessels, pure water, heater or stove.

Preparation of Kashaya (Decoction): 25-150 gm Masabaladi Yavakuta with 200-1000 ml of Shudha Jala was taken and then boiled till 50-300 ml or one fourth Kwath remains in the vessel. The dose was selected depending upon the patient bala and disease. After that the kwath was filtered with cotton cloth into another vessel and then Prakshepa-dravyas (Hingu and Saindhava) were added. The Kwath is then left to cool till the temperature reaches 98-99 degree F.

Sterilization of specially designed Nasapana-yantra or Jalaneti pot is must. Rogi pariksha (patient examination) has to be done considering everything like Atura-vaya (patient...
age), *Kala* (season and day course), *Satwa* (psychology of the patient), Blood Pressure, Pulse, etc. Then, patient is taken to a comfortable room, which is without dust, extreme breeze and sunlight. *Bahyasnehana* (external oleation) in the form of *Mrudu Abhyanga* is done to *Shiras* (head) first and then over *Gala* (neck), *Kapola* (chicks), *Lalata* (forehead) and *Karna* (both earpinna). After *Snehana*, mild *Nadi Swedana* (steam fomentation through a tube) is done to the part of the body above the shoulders. Care of the eyes should be taken by shielding the patient’s eyes with cotton pads.

**Pradhanakarma:** Once the *Poorva Karma* over, the patient made to sit comfortably on a chair. The head of the patient is then elevated with the help of left thumb and held in that position. Patient’s nose is raised with the right hand, and the medicine is poured into a nostril at a stretch with the constant pressure over the bulb. The same procedure should be repeated for other nostril also. Either of the nostrils may be selected for a start. During the procedure patients are asked to swallow the contents gently as much as possible.

**Paschat Karma:** First the patient is advised to clear his/her Nasal pathway by blowing air outside with the help of forceful vigorous exhalation. Then *Gandoosha* and *Kavala Graha* (gargling) were given with *Sukhoshna Lavanodaka* (*Luke warm saline water*). After rest of 48 min, patient was advised to take hot water bath and then *Sukhoshna Jala* (*Luke warm water*) and *Laghu Ahara* (light diet) were given for intake. Patients are strictly advised to avoid *Sheeta-jala-snana* (cold water bath) and *Sheeta-jala-pana* (cold water drinking) during the whole course.

For this study, data of more than 50 patients who had undergone *Nasapana* with *Masabaladi Kwath* for various clinical conditions in last 6 months were collected from the Department of Panchakarma IPGT & RA, Jamnagar irrespective of age and sex. They were observed for dose of *Nasapana*, *Kwath* preparation, Dose of *Prakshepa* added, Temperature of the *Kwath* Before administrations, effect on disease, any complications or side effects.

**Results:**
On the basis of study a standard protocol of *Nasapana* was observed which includes *Purvakarma*, *Pradhanakarma* and *Paschatkarma*. *Nasapana* with *Masabaladi Kashaya* was successfully carried out in more than 50 patients at the Department of Panchakarma IPGT & RA Hospital, Jamnagar by following the above SOP.

**Age of the Patients** - 16 years to 62 years.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male – 35 Patients</th>
<th>Female – 17 Patients</th>
</tr>
</thead>
</table>

**Disease conditions treated**-

<table>
<thead>
<tr>
<th>Ardita-07</th>
<th>Manyastambha-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakshaghata-11</td>
<td>Insomnia-4</td>
</tr>
<tr>
<td>Avabahuka-13</td>
<td>Kampavata-5</td>
</tr>
<tr>
<td>Vishvachi-5</td>
<td>Slurred speech-3</td>
</tr>
</tbody>
</table>

Not a single case of complication was noted, but, in all patients the severity of disease got significantly reduced.

**Samyak Yoga Lakshana of Nasapana**

*Samyak yoga lakshanas* of nasya were taken in consideration for *Nasapan* also. Almost 100% of patients obtained *Vikaropasamana* (decrease of disease). 90% of patients...
obtained Manah sukham (feeling of wellness) and 80 % of patients obtained Sukh swapna (good sleep) after doing Nasapana. Shirolaghava (lightness of head) and Akshilaghuta (decreased heaviness of eye) were observed in 70 % of patients. Other symptoms which were considered also improved considerably and are described in graph no. 1. It was observed that all the patients obtained Samyak lakshana satisfactorily and without any complications.

Discussion:
Dose of Nasapana: Chakradatta had advocated that the dosage of Drava-dravya (liquids) used for Nasapana should be similar to the Kashaya which is given orally. So 1 Pala. (50ml) was considered as the total dose of administration. The total dose was divided equally for both the nostrils i.e. 25 ml in each nostril. While Bhavprakasha mentions three Prasrita dose of Ushapana through Ghranhandriya. Practically it was observed that initial dose of Nasapana may be 1 Pala but it may be increased till 3 Prasrita (300 ml) in Uttarottar Vradhi-krama. Once 300 ml. dose is reached then it may be continued till 7 or 14 days.

Dose of Prakshepa Dravya: There is no specification about amount of Prakshepa Dravya (Hingu and Saindhava) but it had been found that 125 mg Hingu and 900 mg Saindhava was suitable for 100 ml of Masabaladi Kwath.

In most of the medicines explained in context with Nasapana, Acharyas had mentioned about Prakshepa-dravyas which are Teekshna and Rooksha. While in some contexts Tailas are mentioned as Prakshepa-dravya and also some medicines are used in the form of Ksheera-paka. When Prakshepa is to be added, we can consider the dosage of the same from the Nasya context.

Temperature of the Nasapana Yoga- Temperature of the Nasapana medicine should be 98-99 degree F. This is apt for a soothing effect and can prevent irritation and blockage of Nasal pathway by mucous secretion. Higher temperature may damage nasal mucosa. Lower temperature may cause Vata-prakopa due to the effect of Shita Guna.

Why pure water- Nasapana shouldn’t be carried out by using ordinary tap water, this is potentially unsafe and can be uncomfortable because it irritates the mucous membranes and there may be contamination present and so are the chances of infection. An isotonic or hypertonic salt water solution is apt, i.e. water with enough salt to match the tonicity of the body cells and blood. For the same reasons, lukewarm water is preferred over cold water. Therefore use of distilled, sterile or previously boiled and cooled water over ordinary tap water is always advised.

Position for Nasapana - There are no specifications seen in classics about the position for Nasapana, maybe because the procedure Nasapana is considered to be followed as per Nasyavat. For Nasya it had been explained in the classics that the position of head should be little lowered and the legs should be raised a little. But practically it was found difficult for the patient to swallow Kashaya in this position, so the best position for Nasapana is sitting posture and at the same time the head has to be slightly elevated. (PIC-1)

Chances of ADR: The solution used for Nasapana should be distilled, sterile or previously boiled. If this is done, the procedure is generally safe. Naegleria fowleri in unsterilized water can cause brain infection primary amoebic meningoecephalitis, which carries a 95% risk of fatality7.

Conclusion:
With the help of above study we can conclude that by following the proper SOP, patients suitable for Nasapana under the age of 16-62 years of either sex, with the Masabaladi Kwath 50ml-300ml (he/she can tolerate) in successive increasing dose till the maximum for 7 or 14 days was successful and without any side-effect. Thereby this SOP may be used for performing Nasapana for different diseases and patients.
References:


Nasapana Samyak Yoga Lakshana Observed
Nasapana Samyaka Yoga Lakshana Prapti

- Bala prapti
- Swaravishudhi
- Akshi laghuta
- Vikaropashamana
- Sukh Swapna
- Sukhochwas
- Manah Sukham
- Indriya Prasad
- Shirolaghava
- Urolaghava

0.00% 20.00% 40.00% 60.00% 80.00% 100.00% 120.00%