

## 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 *Urdhvamulam 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 Dwaram*<sup>1</sup>. *Nasya* is one among the procedures of *Panchakarma*, where medicines are introduced via Nasal route. The medicines maybe in the form *Kwatha*, *Swarasa*, *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<sup>2</sup>:

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 *Bahusheersagata-vata* he has commented that *Nasya* with *Taila* prepared from *Masha* and *Saindhava* is beneficial in its management<sup>3</sup>. In Chakradatta, *Vata-vyadhi-chikitsa*, *Nasapana* is stated in management of *Avabahuka*, *Viswachi*, *Pakshagata*, *Ardita* and *Manyastamba*<sup>4</sup>. 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) & *Manyastambha* (cervical spondylosis) treatment (C.D. 22/23-24). In Bhavaprakasha, *Baladi Kwatha* is mentioned in the management of *Sheersagata 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<sup>5</sup>. Its positive effects are cited as follows:

*Vigata Ghana Nishithe Pratarutthaya Nityam,  
Pibati Khalu Naro Yo Ghranarandhrena Vari  
Sa Bhavati Mati Purnashchakshusha 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*<sup>6</sup>

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

### Indications –

#### Curative aspects-

<i>Ardita</i> (facial palsy)	<i>Viswachi</i> (brachial neuralgia)
<i>Pakshaghata</i> (hemiplegia)	<i>Trishna</i> (excessive thirst)
<i>Avabahuka</i> (frozen shoulder)	<i>Anidra</i> (insomnia)
<i>Manyastambha</i> (cervical spondylitis)	<i>Gadagada-vak</i> (slurred speech)

#### Preventive Aspects

<i>Vali</i> (wrinkles)	<i>Shotha</i> (edema)
<i>Palita</i> (gray hair)	<i>Rasayana</i> (rejuvenation)
<i>Pinasah</i> (rhinitis)	Budhi prasadana (brighten intellect)
<i>Swarabhanga</i> (hoarseness of voice)	<i>Chakshusya</i> (improves eyesight)
<i>Kasa</i> (cough)	<i>Sarvarogairvimuktah</i> (relief from all diseases)

### Contraindications-

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

### 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:

- 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.
- 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*), *Katruna* (*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)
- Other items:** *Balataila* (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.

<b>Sex</b>	Male – 35 Patients	Female – 17 Patients
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### Disease conditions treated-

<i>Ardita</i> - 07	<i>Manyastambha</i> - 4
<i>Pakshaghata</i> - 11	Insomnia- 4
<i>Avabahuka</i> - 13	<i>Kampavata</i> -5
<i>Vishvachi</i> – 5	Slurred speech-3

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 *Ghranhendriya*. 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 meningoencephalitis, which carries a 95% risk of fatality<sup>7</sup>.

#### **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:

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<sup>2</sup> **A Critical Review on the Concept of *Nasapana* and its Mode of Action.**

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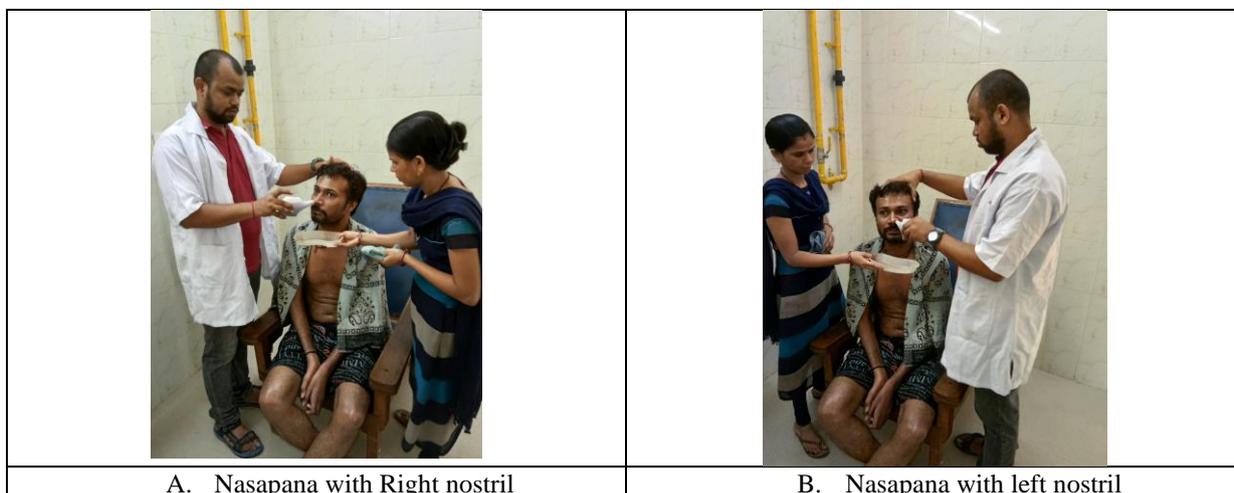
<sup>3</sup> Chakrapanidatta, Cakradatta- Chikitsa Sangraha, translated by P V Sharma, Varanasi; Chaukambha Publishers: 2007.

<sup>4</sup> Chakrapanidatta, Cakradatta- Chikitsa Sangra, Chikitsa sthan, vatavyadhi, translated by P V Sharma, Chikitsa sthan, vatavyadhi, Varanasi; Chaukambha Publishers: 2007.

<sup>5</sup> Shaligrama vaishya, Bhavprakash Samhita purvakhanda, Shree Venkateshvar mudranhalaya, Mumbai, Chaturth prakranha verse 317, 1963, page no 104

<sup>6</sup> Pandit Jibananda Vidyasagara B. A., Vangasena, Chikitsasarsangraha, second edition, Sidheshwer yantra mudrit, Kolkata, 1893, vatavyadhi adhikar verse 123, page no. 326

<sup>7</sup> Nasal irrigation, Wikipedia, <http://en.m.wikipedia.org>



**Picture of Nasapana: A and B**

**Nasapana Samyak Yoga Lakshana Observed**

