



A CASE STUDY ON NASAL VESTIBULITIS AND ITS MANAGEMENT THROUGH AYURVEDA

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ABSTRACT

Nasal vestibulitis (NV) is a common inflammatory condition affecting the nasal vestibule, often triggered by nasal discharge and trauma, exacerbated by predisposing factors like rhinitis or sinusitis. *Staphylococcus aureus* is the primary causative organism. Though lacking comprehensive epidemiological data, NV appears prevalent among the elderly. Clinically, it manifests acutely with redness, swelling, and crusting, progressing to chronic induration and fissures. Treatment involves meticulous cleansing and application of antibiotic-steroid ointments, sometimes requiring cauterization for chronic cases. In Ayurveda, NV corresponds to Nasapaka, characterized by pitta and rakta imbalances leading to various symptoms. Ayurvedic management includes pitta-reducing therapies. This case study illustrates successful management of NV in an 8-year-old with Ayurvedic interventions like Avapeedana nasya and Nasapichu, along with internal medicines, which addresses underlying imbalances of pitta, vata, and rakta.

KEYWORDS: Nasal vestibulitis, Nasapaka, Avapeedana nasya, Nasapichu.

INTRODUCTION

Nasal Vestibulitis is a diffuse dermatitis of nasal vestibule. Nasal discharge, due to any cause such as rhinitis, sinusitis or nasal allergy, coupled with trauma of handkerchief, is the usual predisposing factor. The causative organism is *S. aureus*.^[1] Although no studies to date have investigated the incidence and prevalence of NV, it appears to be common condition especially in elderly.^[2]

Vestibulitis may be acute or chronic. In *acute form*, vestibular skin is red, swollen and tender; crusts and scales cover an area of skin erosion or excoriation. In *chronic form*, there is induration of vestibular skin with painful fissures and crusting. Treatment consists of cleaning the nasal vestibule of all crusts and scales with cotton applicator soaked in hydrogen peroxide and application of antibiotic-steroid ointment. A chronic fissure can be cauterized with silver nitrate.^[3]

In ayurveda nasal vestibulitis is correlated to Nasapaka, which is one among the 31 types of nasa rogas explained by Acharya Sushruta.^[4] Nasa paka is characterised by formation of arumshika and vikleda,^[5] and further Acharaya Charaka and Acharya Vaghbata explained the

additional characteristics of this disease as: there will be predominance of pitta and rakta which does paka of twak and mamsa in nasaputa leading to shvayatu, daha, shula and raga.^{[6][7]} Treatment of nasapaka in ayurveda includes general pittahara line of treatment like rakta mokshana, kshiri vriksha kashaya seka and lepana with kshiri vriksha dravya mixed with ghrita.^[8]

In this case study avapeedana nasya and vranavat chikitsa was adopted along with internal medication which reduced the prakupita pitta, vata and rakta and thus giving the effective results in nasa paka w.r.t nasal vestibulitis.

CASE REPORT

A 8 year old male child, having a chronic history of nasal obstruction, nasal discharge associated with mouth breathing and snoring since 3 years came with chief complaints of bleeding from nose since 3 days, ulcers in the nasal cavity which are associated with pain, burning sensation, blood stained nasal discharge, redness and swelling around the edges of the nostrils more on left side since 15 days. Also patient developed with a habit of nose picking as there are dry crusts on either side of nasal cavity which caused irritation to patient, and

fissures on the edges of nostrils of both sides since 1 month. One month back for the above complaints patient was taken to nearby clinic and was prescribed with nasal spray and oral medication (details unknown) and found temporary relief within 3 days, and discontinued the treatment. As the complaints reoccurred for further management patients mother approached to Shalakyta tantra OPD of SKAMCH Bengaluru on 22/1/23. Aggravating factor- nose picking, exposure to dust, in the month of jan- march. Relieving factor – application of petroleum gel.

Family History

Patient's father is k/c/o of sinusitis since 5-6 years.

Personal History

- ▶ Diet- mixed
- ▶ Appetite- reduced
- ▶ Bowel- regular-- once in morning
- ▶ Micturition- regular – 2-3 times/day
- ▶ Habits- nose picking
- ▶ Sleep- disturbed

EXAMINATION OF PATIENT

General examination

- ▶ Built- poor Edema- present over the tip and ala of nose
- ▶ Nourishment- poor Clubbing- Absent
- ▶ Height- 126.5cm Cyanosis- Absent
- ▶ Weight- 16.7kg Lymphaadenopathy -Absent
- ▶ BMI- 10.4kg/m² Pulse rate- 74 beats/min
- ▶ Pallor- Absent Respiratory rate- 16 cycles/min
- ▶ Icterus- Absent Temperature- 98* F

SYSTEMIC EXAMINATION

CVS: S1 S2 heard, No murmurs.

RS: Chest bilaterally symmetrical, Normal vesicular breath sounds, No added sounds.

GIT: Soft, no distension, no tenderness.

CNS: Conscious & well orientated to time place & person.

NASAL AND PARANASAL SINUS EXAMINATION

External nose examination

INSPECTION

- Skin – alar part of the nose- redness and swelling present on both the sides
- Ulcer, Crust and fissures- present on both the sides
- Dorsum of nose- deviation to right

PALPATION

- Tenderness- present over the tip and alar part of nose
- Thickening of soft tissue over the left nasal ala- present
- Crepitation- absent

Vestibule Examination

- Ulcer- Present in both side of nasal cavities (more on left side)
- Crusting – Present on both side of nasal cavity (more on left side), bleeding on removal of crust was observed
- Fissure- Present more in the left side of the nostril.
- Swelling- Present on both sides over tip and nasal ala.
- Congestion – Present in the both sides.
- Dislocated caudal end of the septum-Absent
- Furuncle- Absent
- Tumours/ cyst- Absent

Anterior rhinoscopic examination

INSPECTION

- Nasal passage- Narrow bilaterally
- Nasal Septum-septal mucosa inflamed, deviated to right side, it is a C- shaped deformity.
- Floor of nose – small, multiple ulcers with dry crusts present
- Roof- not visible
- Lateral wall-

Turbinal mucosa- congestion present.

Ulcer- small, multiple ulcers -present on either side, Discharge-dried, blood stained brownish crusts in nasal cavity.

Mass- Absent.

Posterior rhinoscopic examination

INSPECTION

- Choanal polyp or atresia - Absent
- Hypertrophy of posterior ends of inferior turbinates- Absent
- Discharge in the middle meatus- Absent
- Adenoids- Not enlarged
- Tonsils- Not enlarged.

Functional Examination of Nose

▶ PATENCY TEST

- Spatula test- area of condensation is more on the right compared to left
- Cotton wool test- movement was more appreciated on right side when compared to left side

- ▶ **SENSE OF SMELL-** able to appreciate moderate and strong odorous substances

Paranasal sinus examination

▶ INSPECTION

No signs of inflammation present in the sinus areas.

▶ PALPATION

Frontal sinus
maxillary sinus
Ethmoid sinuses } Tenderness absent bilaterally

DIAGNOSIS - On the basis of signs and symptoms and nasal examination it was diagnosed as Nasapaka vis-a-vis Nasal Vestibulitis.

TREATMENT PROTOCOL

Patient was treated on OPD base from 22/1/24 to 10/2/24.

- Avapeedana nasya with Durva swarasa 6 drops in each nostril once daily for 5 days
- Nasa pichu with jatyadi taila for 20 mins in each nostril was continued for next 15 days

- Ksheerabala taila for External application over the vestibule (5 – 6 times a day)
- Tab. Livomyn 1-1-1 (B/F)
- Sarsaparilla 1 tsp BD(A/F)
- Chyavana prash avaleha- 1tsp BD in empty stomach f/b a cup of warm milk
- Shadanga paniya shruta sheeta jala for pana Pathya- Mamsa Rasa, mudga , kshira, ghrita. Apathya- katu ahara, bakery items, nose picking, rajodhuma sevana

OBSERVATION

Patient's assessment was done by subjective parameters i.e symptoms of nasapaka. [Table-1]

Criteria	Before treatment	After treatment
Vrana	Present on both side	Absent
Daha	Present on both side	Absent
shula	Present on both side	Absent
Rakta srava from nasa	Present on both side	Absent
Raga	Present on both side	Absent
shwayatu	Present on both side	Absent
Crusts	Present on both side	Absent
Fissures	Present on both side	Absent
Nasa avarodha	Present on both side	Reduced significantly
Mouth breathing,	Present	Absent
Snoring	present	Absent
Deviated septum	On right side	On right side



Before Treatment



7th Day of the treatment



After treatment

DISCUSSION

Mode of action of drugs

1) Avapeedana nasya with durva swarasa- It is sthambana type of nasya. Medicinal properties of Durva (*Cynodon dactylon*) are madhura kashaya tikta rasas, laghu guna, madhura vipaka and sheeta veerya which reduces the vitiated pitta rakta doshas and thus subsiding the daha, raga and vrana in nasa. And also the phytochemical composition of Durva contains flavonoid alkaloids and tannins which acts as haemostatic and anti-inflammatory in action.

2) External application of ksheera bala taila on the nasal vestibule- Ksheera bala taila contains Gokshira, Bala (*Sida cordifolia*) and Tila taila (*Sesame oil*) which in total has a properties of vata, pitta, rakta shamana, indriya prasadana, twachya, vrana ropana balya properties. Application of ksheerabala taila over the nostrils helps to

soften the crusts, prevents further crusts formation and promotes wound healing, giving the symptomatic relief to the patient.

3) Nasa pichu with jatyadi taila- In this procedure the cotton wick is dipped in jatyadi taila and inserted inside the nostrils, which helps to retention of the taila for specific amount of time and local action of pichu is based on cellular absorption of taila. Most of the ingredients used in Jatyadi taila are Shothahara, Vedanasthapana and Ropaka. The ingredients like Neem, Haridra, Daruharidra, Abhaya. Lodhra have antimicrobial activity. Manjistha, Sariva, Karanja ingredients are having vrunashodhana (wound cleansing) property. Naktahva and Abhaya have antioxidant and wound healing properties. Katuka improves re-epithelialization, neo-vascularization and migration of

endothelial cells, dermal myofibroblasts and fibroblasts into the wound bed. Jati, Patola and Sikta have vranaropana (Wound healing) action Kushta has anti-inflammatory action. Madhuka has soothing and healing action on skin fissures topically. Neelotpala has astringent and antiseptic properties. Tuttha i.e. copper sulphate induces vascular endothelial growth factor (VEGF) expression in the wound.^[9]

4) Sarsaparilla syrup –It contains sarsaparilla root extract which is a coolant, and has anti-inflammatory and detoxifying action, and is widely used in pitta pradhana vyadhis.

5) Tab livomynn- It contains 12 drugs which are tiktakshya katu rasa and laghuguna pradhana , which reduces the prakupita raktapiita, also these ingredients are anti-inflammatory, immunomodulatory in actions and increases the digestive capacity in the body.

6) Chyavana prasha avaleha- It is an ayurvedic formulation, a rasayana known to promote overall wellbeing. It contains powerful anti oxidants and immunomodulating agents, which studies report that it can be effective in paediatric age group, upper respiratory tract infection like praishyaya, kasa etc.

7) Shadanga paniya shrut shita pana- It contains musta, parpataka, ushira, chandana, udichya and nagara having tikta katu rasa pradhana, laghu ruksha guna, sheeta virya and katu vipaka. Agnideepana, dahaprashamana, pittaraktashamana are main karmukta of this. These drugs are having anti-inflammatory, antimicrobial and antiviral actions. Studies have shown that Udichya has shown the efficacy against *S. aureus*.^[10]

CONCLUSION

It can be concluded that management of Nasa paka w.r.t Nasal vestibulitis and reoccurrence of this condition can be successfully prevented & managed through nasya and nasa pichu with vrana ropana dravyas along with combination of internal medicine which are piitashamaka and pratishayahara in action.

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