

Study of Nasa Sharir With Special Reference To Nasapratinaha

Dr. Namrata Anil Ghorpade

BAMS, MD (Rachana sharir)

Assistant Professor

Dept Rachana sharir Anand Ayurved college Vajapur

Abstract-

Nasa have utmost importance as it plays vital role in process of respiration and olfaction. Also Nasa is considered gate way for drug administration and elimination of doshas from the head. So acharyas have described 31 type of nasaroga in the classic. Each nasaroga has its own characteristic but still nasapratinaha is more significant among all nasarogas. As in Nasapratinaha Uccwaas and Nishwaas sanrodha (Nasal obstruction) is cardinal symptom and patients having uccwaas and nishwaas sanrodha (nasal obstruction) are seen in day to day practice in shalaky OPD. Nasapratinaha has been described on the basis of Dosha dushti in Ayurvedic literature. Hence which structures of Nasa are involved in Nasapratinaha and structural changes in Nasa cannot be explained. Hence to understand the structural involvement and changes we have 30 diagnose patient of Nasapratinaha presenting cardinal symptom as mentioned in samhitas. And then have examine Nasa with modern diagnostic technique like nasal endoscopy. Hence which structures of nasa are involved and which structural changes had occurred can be understood

Key words- Nasa, Nasapratinaha, Uccwas and Nishwaas sanrodha

Introduction-

Indriyas are organ of sense. And Nasa is one of the indriya among panch gyanendriya. Nasa plays vital role in process of respiration and is described seat of Ghranendriya, the organ of olfaction. In the Ayurvedic literature, there is no detailed description of Nasa Shareera at one Place like the anatomical description of other organs, whereas Nasa is included among the five Gyanendriya. On scrutinizing the Ayurvedic classics it is observed that, a lot of terms have been used by different Acharyas to indicate various anatomical parts of Nasa, while explaining them and also while describing the pathophysiology of Nasal diseases. But these terminology is not enough to describe Nasa shareer.

Acharya Sushruta while enumerating the external orifices of the body, has considered the two nostrils also, among the chief nine Bahirmukha Srotas (External orifices). Aslo Nasa plays important role in respiration hence is prone to bacteria, fungus, allergic reactions, degenerative changes and injuries. Each nasaroga has its own characteristic but still nasapratinaha is more significant among all nasarogas. As in Nasapratinaha Uccwaas and Nishwaas sanrodha is cardinal symptom and patients having uccwaas and nishwaas sanrodha are seen in day to day practice in

shalakya OPD. Due to extensive exposure to avashyaya, dhuma, rajo and vayu sevana.

In Nasapratinaha the Udana vayu gets Aavrutha with Kapha dosha and causes vitiation in its own place (Swa marga viigunya) leading to obstruction in the Uccwaasamarga which causes difficulty in breathing. Nasapratinaha has been described in almost all samhitas with similar opinion.

Aim:- To study Nasasharir in Nasapratinaha

Objectives:-

- 1) To study structural involvement in Nasapratinaha
- 2) To study anatomical changes in Nasa.

Material & Methods-

Material- In the present study, 30 patients from shalaky OPD of Ayurved college And Research centre Nigadi Pune were selected & assessed on the basis of following criteria:

Inclusion Criteria:-

1. Patients having Nasapratinaha has been selected.
2. Age group:- 15 to 50 yrs
3. Gender:- Irrespective of gender.
4. Irrespective of socioeconomic status.

Exclusion Criteria:-

- 1) Nasaavrodha caused due to foreign body.
- 2) Patients suffering from major systemic disorders.

- 3) Other severe diseases like - HIV, TB, Leprosy, Ca of nose, PNS mouth, throat etc.
- 4) Patients having contra indication for lab oratorical investigations.
- 5) Drug induced nasal congestion.

Methodology-

- 1.) Patients having classical lakshan mentioned in (C.chi.26/112, A.H.U.19/17, A.S.U.23/112, S.U.22/15) were randomly selected from shalaky OPD.
- 2.) Differential diagnosis
 - 1.) A primary diagnosis of patient was done on basis of granthokta lakshanna (C.chi.26/112, A.H.U.19/17, A.S.U.23/112, S.U.22/15) of Nasapratinaha
 - 2.) Differential diagnosis of patient of Nasapratinaha was done with Nasa arsha, Nasa arbuda, Putak, Nasa shosa, Dushta pratishaya.

lakshana	Nasapratinaha	Nasa Arsha	Nasa Arbuda	Nasa Putak	Nasa shosa	Dushta pratishaya
Uccwas Nishwas sanrodha (Nasal obstruction)	+	+	+	+	+	+
Pinasa	-	+	+	-	-	+
Continuous sneezing	-	+	+	-	-	-
Nasal voice	-	+	+	-	-	-
Foul smell	-	+	+	-	-	+
Putak uttapati	-	-	-	+	-	-
Dryness of Nose	-	-	-	+	-	+
Thorn filling in nose	-	-	-	-	+	-

And it was observed that uccwas Nishwas sanrodha is the only cardinal lakshanna present in Nasapratinaha no other laksanna are seen

3) Clinical examination of patients-

Clinical examination of patient was done by two methods.

- 1.) Inspection of external nose and palpation of nose and para nasal sinuses.
- 2.) Nasal patency test.

Inspection of external nose- was done to see whether any

- 1.) Deformity of nose was visualized as it is suggestive of congenitally, developmental or following trauma of nose .
- 2.) Broadening of nose was visualized which is suggestive of polyps or due to malignancy.
- 4.) Furuncle was seen whether present or absent as it may cause localized obstruction of nasal passage.
- 5.) Swelling- Especially round the eye or cheek for paranasal sinuses was examined as it is suggestive of sinusitis.

Palpation of nose and para nasal-

- 1.) Tenderness- Was observed as it is suggestive of trauma, furuncle, sinusitis. Tenderness was specially seen around cheek, medial canthus, roof of orbit, supra orbital skull as suggestive of sinusitis
- 2.) Crepitation- whether present or absent was seen as it is suggestive of fracture of the nasal bone

Nasal Patency Test-

Normally in nose air entry takes place during inspiration and air exits during expiration. This process indicates patency of nose.

If these process of air entry and exit alters then it indicates obstruction.

Aim Of Nasal patency test- To establish complete or partial blockage of nose.

As cardinal symptom of Nasapratinaha is Nishwas uccwas sanrodha..... (A H U 17/19)

Nasapratinaha was diagnosed with help of nasal patency test.

Nasal Patency Test Procedure-

In Nasal patency test patients was advised to inhale by nose and not by mouth and then was asked to expire air on the shiny surface and the clouding of air was noticed of both the nostril respectively.



As mouth is closed (air entry) inspiration was allowed only through nose and inspired air was allowed to expire on shiny surface.

- 1.) Clouding of air was notice –(a)If clouding of air present then obstruction absent
(b) if clouding of air absent then obstruction indicates.
- 2.) Comparision of surface area of clouding of air by both nostril was done.
(a)If surface area of clouding of air of both nostril on shiny surface equally present then bilateral air entry and exit is proper and nose is patent.
(b.)If surface area of clouding of air of both nostril on shiny surface is not equal indicates partial blockage.
(c.) If clouding of air of any one nostril on shiny surface is not equal or absent indicates unilateral blockage.
(d) If clouding of air of both nostril on shiny surface is absent indicates bilateral blockage.

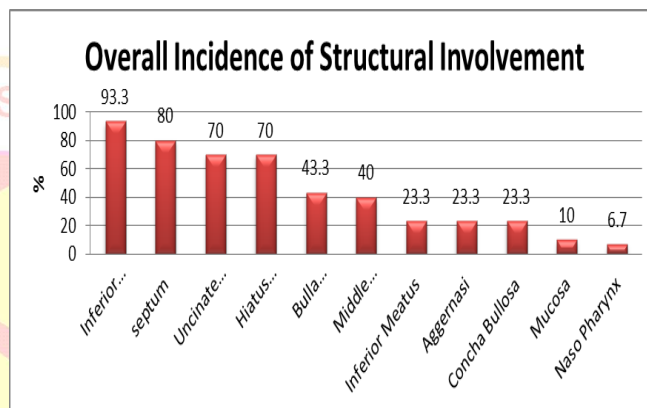
In this way Nasal patency test is confirmatory examination to check Uccwaas Nishwaas sanrodha .Thus the patients who were diagnosed having Nasapratinaha by Nasal patency test were further examined by Nasal endoscopy.With help of Nasal endoscopy structural involvement and change was easily visulaized .Structural involvement and changes found in Nasal endoscopy were noted on case record form.

Observation and results

Overall Incidences Of Structural Involvement In Nasapratinaha

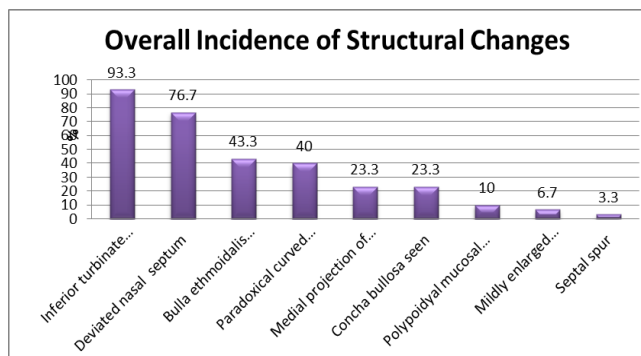
STRUCTURAL INVOLVEMENT	NO. OF CASES	PERCENTAGES
INFERIOR TURBINATE INVOLVED	28	93.3
SEPTUM INVOLVED	24	80
UNCINATE PROCESS INVOLVED	21	70
HIATUS SEMILUNARIS INVOLVED	21	70
BULLA ETHMOIDALIS INVOLVED	13	43.3
MIDDLE TURBINATE INVOLVED	12	40
INFERIOR MEATUS	7	23.3

INVOLVED			
INFERIOR MEATUS INVOLVED	7	23.3	
AGGER NASI INVOLVED	7	23.3	
CONCHA BULLOSA INVOLVED	7	23.3	
MUCOSA INVOLVED	3	10	
NASOPHARYNX INVOLVED	2	6.7	



Overall Incidence Structural Changes In 30 Patients Of Nasapratinaha

STRUCTURAL CHANGES	NO. OF CASES	PERCENTAGES
Inferior turbinate hypertrophy	28	93.3
Deviated nasal septum	23	76.7
Bulla ethmoidalis hypertrophied	13	43.3
Paradoxical curved middle turbinate	12	40
Medial projection of agger nasi	7	23.3
Concha bullosa seen	7	23.3
Polypoidyal mucosal thickening	3	10
Mildly enlarged adenoids	2	6.7
Septal spur	1	3.3



**STRUCTURAL INVOLVEMENT AND CHANGES OBSERVED IN NASA SHARIR IN NASAL
ENDOSCOPY**



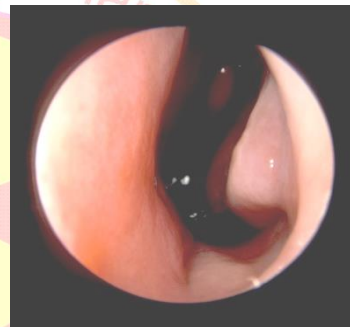
**PARADOXICAL CURVED MIDDLE
TUBINATE**



MEDIAL PROJECTION OF AGGER NASI



HYPERTROPHIED BULLA ETHMOIDALIS



NASOPHARYNGEAL OBSTRUCTION DUE TO A



**LEFT SIDED CONCHA BULLOSA
HYPERTROPHIED**



**LEFT SIDED NODULAR TYPE OF INFERIOR
TURBINATE HYPERTHROFY**



PUS COLLECTION IN MIDDLE MEATUS



**INFERIOR TURBINATE
HYPERTROFY**



SEPTAL SPUR



DEVIATED NASAL
SEPTUM

Discussion-

Uchwas and Nishwas Sanrodha-Uccwaas and nishwaas sanrodha lakshan is seen in 100 % patients. Uccwaas and Nishwaas sanrodha means obstruction in process of inspiration and expiration .As Udana vayu combines with kapha dosha and gets vitiated from its marga.This udana vayu along with kapha takes sthansanshraya in Nasa guha and creates avarodha for vayu pravritti and results in uccwaas and nishwaas sanrodha.

Anatomical involvement and Changes-

- 1.) Septum- Septum is involved in 80% patients and structural change seen is deviated nasal septum and septal spur. Nasal septum is centrally placed, giving passage for air flow when septum is markedly deviated causes mechanical obstruction of air flow and interfere in drainage of sinus and result into obstruction.While septal spur causes mechanical obstruction in air flow. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated Vata dosha is sransa(shifting organ from its site)due to karma of vata dosha septum get deviated from centre .
- 2.) INFERIOR TURBINATE-Inferior turbinate structural involvement and changes seen is inferior turbinate hypertrophy . When Turbinates gets enlarged causes mechanical obstruction and blockage of air sinuses. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated Vata dosha is vyas(spreading or prasarnna)due to karma of vata dosha Inferior turbinate get hypertrophied.
- 3.) INFERIOR MEATUS-In inferior meatus was involved in 23.3% and no any structural change was seen in inferior meatus .Secretion collection was found. Secretion collection causes barrier in air flow and sinus drainage. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated kapha dosha is Bandhan (obstruction)and upalepa(coating inside the channels) due to karma of Kapha dosha secretions collection is seen in inferior meatus which causes obstruction .
- 4.) AGGER NASI-Agger nasi is involved in 23.3% patients and structural change seen is medial projection of agger nasi . Agger nasi is a small ridge on the lateral side of the nasal cavity.It is located midway at the anterior edge of the middle nasal concha directly above the atrium of the middle meatus.An medial projection causes mechanical obstruction of sinus drainages. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated Vata dosha is sransa(shifting organ from its site)due to karma of vata dosha medial projection of agger nasi cell takes place.
- 5.) Middle turbinate- Middle turbinate is involved in 40% patients and structural change seen is paradoxical curvature. When middle turbinate is paradoxical curved it causes mechanical obstruction in air flow and sinus drainage . As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated Vata dosha is sransa(shifting organ from its site) due to

karma of vata dosha paradoxical curvature of middle turbinate takes places.

- 6.) Concha bullosa-Concha bullosa is involved in 23.3% patients and its structural change seen is its hypertrophy. It is bony balloon shape formation on the middle turbinate and depending on the size it may cause trouble with breathing and draining of sinuses. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated Vata dosha is vya(spreading or prasarnna)due to karma of vata dosha Concha bullosa get hypertrophied.
- 7.) Uncinate process- Uncinate process is involved in 70% and no structural change has been seen in uncinat process.Pus and secretion collection was found. Uncinate process is a curved lamina of ethmoid bone , it forms a small part of the medial wall of the maxillary sinus and articulates with the ethmoidal process of the inferior nasal concha.when pus collection or secretion collection,it creates barrier for air flow and sinus drainage. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated kapha dosha is due Bandhan (obstruction)and upalepa(coating inside the channels) due to secretions collection is seen causes obstruction.
- 8.) Bulla ethmoidalis- Bulla ethmoidalis is involved in 43%. And structural change seen is hypertrophy of Bulla ethmoidalis . On lateral wall of the middle meatus a curved fissure hiatus semilunaris is limited below by the edge of the uncinat process of ethmoid and above by an elevation named the Bulla ethmoidalis.Hypertrophy of Bulla ethmoidalis causes mechanical obstruction in air passage and drainage of sinus. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated Vata dosha is vya(spreading or prasarnna) due to karma of vata dosha Bulla ethmoidalis get hypertrophied.
- 9.) Hiatus semilunaris- Hiatus semilunaris is involved in 70% patients.while no structural change is seen in hiatus semilunaris. Secretion and pus collection was found.Secretion and pus collection causes

barrier in air passage and sinus drainage. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated kapha dosha is Bandhan (obstruction)and upalepa(coating inside the channels) due to secretions collection is seen causes obstruction.

- 10.)Mucosa-Mucosa is involved in 10 % patients.And structural change seen is Polypoidyal mucosal thickening. Due to thickening mechanical obstruction is air flow and sinus drainage results. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated kapha dosha is Bandhan (obstruction)and upalepa(coating inside the channels)due to secretions collection is seen causes obstruction.
- 11) Nasopharynx-Nasopharynx is involved in 6.7% patients and structural change is seen in 6.7% patients. -Are located higher in mouth behind nose and roof of the mouth their enlargement can cause obstruction in air flow and sinus drainage. As in Nasapratinaha Vata and Kapha dosha gets vitiated and karma of vitiated vata dosha is vya(spreading or prasarnna)due to karma of vata dosha enlargement is seen .

Conclusion

In Nasapratinaha multiple structures of nasa are involved at a time and structural changes are found resulting in uccwaas nishwaas sanrodha. Nasapratinaha is a situation in which there is obstruction in the nasal passage that makes breathing difficult.

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