

A CASE STUDY TO EVALUATE THE EFFECT OF *CHITRAKA HARITAKI* AND *HINGWADI TAIL NASYA* IN MANAGEMENT OF *DUSHTA PRATISHYAYA* W.S.R. TO CHRONIC SINUSITIS

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ABSTRACT

Dushta Pratishyaya is explained in *Ayurvedic* system of medicine as on & off discharge from nose, stuffy nose, smelly breathe, absence of sense of smell etc. The clinical features of *Dushta Pratishyaya* as explained in *Ayurvedic* literature have the relevance with Chronic sinusitis. This work was planned with two formulations from classical texts i.e. *Chitraka Haritaki Avleha* & *Hingwadi Tail (Nasya)* were evaluated under the title “A Case study to Evaluate the Effect of *Chitraka Haritaki* and *Hingwadi Tail Nasya* in management of *Dushta Pratishyaya* w.s.r. to Chronic Sinusitis”. The duration of trial was 28 days with 2 weeks follow up evaluation based on subjective criterion. On the completion of trial i.e. after 28 days, subjective and

objective (X-ray PNS W/V) criteria were taken into consideration. So Patient had 81.25% change in signs and symptoms So Patient was markedly improved.

KEYWORDS: *Dushta Pratishyaya*, Chronic sinusitis, *Chitraka Haritaki Avleha*, *Hingwadi Tail, Nasya*.

INTRODUCTION

Dushta Pratishyaya is explained in *Ayurvedic* system of medicine as on & off discharge from nose, stuffy nose, smelly breathe, absence of sense of smell etc. The clinical features of *Dushta Pratishyaya* as explained in *Ayurvedic* literature have the relevance with Chronic sinusitis. Sinusitis is a common problem among all age groups and is a leading cause of hospital visits worldwide. Around 134 million Indians suffer from chronic sinusitis which means 1 in every 8 is being suffered. This disease is characterized by tenderness over sinus region, headache, nasal blockage, nasal discharge, fever and bad breath.^[1] Once sinus is infected, improper management and dietary habits lead the disease into a chronic phase this chronic sinusitis is too difficult to drain out completely. It is reasonable to expect that individual of sinusitis symptoms can result in more complex problems such as sleep disturbances, psychological disorders (changes in mood, depression, and anxiety), fatigue, and sexual dysfunction.

In modern medical system a wide range of antibiotics and decongestants are available. But these drugs have nothing to do with such a chronic condition. Antral puncture and antral irrigation is the commonest intervention, FESS (Functional Endoscopic Sinus Surgery), Caldwell-Luc operation, Haworth's operation etc. are the chief operative procedures to drain the sinus if conservative measures fail.^[2] All these costly surgical procedures will lead a lot of complications ranging from bleeding, oro-antral fistula, infra orbital anesthesia leads to neuralgia and paraesthesia.

This case study is planned to evaluate the *Ayurvedic* drug on the Chronicity of the disease. The detailed study of the disease, its nature & course and treatment with *Ayurvedic* Drug having minimal side effects & better efficacy. This work was planned with two formulations from classical texts i.e. *Chitraka Haritaki Avleha* & *Hingwadi Tail (Nasya)* were evaluated under the title **"A Case study to Evaluate the Effect of *Chitraka Haritaki Ableha*^[3] and *Hingwadi Tail Nasya*^[4] in management of *Dushta Pratishyaya* w.s.r. to Chronic Sinusitis".**

The duration of trial was 28 days with 2 weeks follow up evaluation based on subjective criterion. On the completion of trial i.e. after 28 days, subjective and objective (X-ray PNS W/V) criteria were taken into consideration.

DEFINITIONS

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When *Pratishyaya* is not treated timely and person continue to indulge in unwanted food and regimen then the condition worsens and become chronic, which is called *Dushta Pratishyaya*. The word ‘*Dushta*’ itself suggests more vitiated condition of *Doshas*.

Lakshanas of *Dushta Pratishyaya* are mentioned in *Brihatrayi*, *Madhavanidana*^[6], *Yogaratanakara*^[7] and *Bhavaprakasha*.^[8] Acharya Madhava, *Yogaratanakara* and *Bhavaprakasha* have followed *Sushrutacharya*’s opinion and along with those *Lakshana Krimi Utapatti* is also mentioned.

CASE REPORT

A 45 years female patient came to us with chief complaints of

1. Nasal obstruction
2. Difficulty in breathing
3. Thick nasal discharge
4. Headache
5. Post Nasal discharge

Patient had above complaints since 3 months.

History of personal illness: According to the patient, she was asymptomatic before 3 months. Then patient have been suffering from nasal obstruction and headache. It gradually increases and She also developed thick discharge from nose on and off. The nature of discharge was mucopurulent. Patient is also having complaints of general weakness. She was already taking modern medication but got no relief, then she decided to take Ayurvedic management. THEN She came to R.G.G. P.G. Govt. Ayu. College Paprola.

Personal history

Diet: Mixed

Surroundings: Neat and clean

Occupation: Housewife

Bad habits: No addications

O/E

1. General condition of patient is moderate
2. Pulse rate: 76/min
3. B.P. 130/78 mmof Hg
4. Weight-52kg, Height-156cm
5. Respiratory System : Clear Air Entry
6. CVS-S1 S2 normal, no abnormal sound
7. CNS- well conscious, oriented place, person, time
8. Ear: B/L Retracted TM
9. Nose: Thick secretions in nasal cavity eith tenderness in maxillary region.
10. Throat: Lymphoid tissue increased on post. Pharyngeal wall

Drug schedule

1. *Chitraka Haritaki* 10 gm twice a day for 4 weeks with hot water.
2. *Hingwadi Tail Nasya* - 6 drops in each nostril every morning for 7 days. 2 cycles of *nasya* (days interval).

Duration of Treatment: 4 weeks.

Follow up: Two weeks.

Table No.1: Rasa Panchaka of Contents of Drug Formulation Chitraka Haritaki^[9]

Sr no.	Ingredients	Rasa	Guna	Virya	Vipaka	Dosha-karma
1	Chitraka	Katu	Laghu, Ruksha, Teekshana	Ushana	Katu	Vatakaphashamaka, pittavardhaka.
2	Amalaki	Amla, Madhura, Kashaya, Tikta, Katu	Guru, Ruksha, Sheeta	Sheeta	Madhura	Tridoshamaka especially pittashamaka
3	Guduchi	Tikta, Kashaya	Guru, Snigdha	Ushana	Madhura	Tridoshashamaka
4	Bilva	Kashaya, Tikta	Laghu, Ruksha	Ushana	Katu	Kaphavatashamaka
5	Agnimantha	Tikta, Katu, Kashaya, Madhura	Ruksha, Laghu	Ushana	Katu	Kaphavatashamaka
6	Shayonaka	Madhua, Tikta, kashaya	Laghu, Ruksha	Ushana	Katu	Tridosha shamaka
7	Gambhari	Tikta, Kashaya, Madhura	Guru	Ushana (Fruit- Sheeta)	Katu	Tridoshashamaka
8	Patla	Kashaya, Tikta	Laghu, Ruksha	Ushana	Katu	Tridosha shamaka
9	Shalparni	Madhura, Tikta	Guru, Snigdha	Ushana	Madhura	Tridoshashamaka
10	Prishniparni	Madhura, Tikta	Laghu, Snigdha	Ushana	Madhura	Tridoshashamaka
11	Gokshura	Madhura	Guru, Snigdha	Sheeta	Madhura	Vatapittashamaka
12	Brihati	Katu, Tikta	Laghu, Ruksha, Teekshana	Ushna	Katu	Kaphavatashamaka
13	Kantakari	Tikta, katu	Laghu, Ruksha, Teekshana	Ushana	Katu	Kaphavatashamaka
14	Haritaki	Pancha Rasa; Kashaya Pradhana	Laghu, Ruksha	Ushna	Madhura	Tridoshamaka especially Vatashamaka
15	Guda	Madhura	Guru, Snigdha	Sheeta	Madhura	Vatapittashamaka
16	Shunthi	Katu	Laghu, Snigdha	Ushna	Madhura	Vatakaphashamaka
17	Maricha	Katu	Laghu, Tikshna, Ruksha	Ushna	Katu	Kaphavatashamaka
18	Pippali	Katu	Laghu, Snigdha, Teekshana	Anushna- sheeta	Madhura	Kaphavatashamaka
19	Tvaka (Dalchini)	Katu, Tikta, Madhura	Laghu, Ruksha, Teekshna	Ushana	Madhura	Vata-kaphashamaka
20	Sukshmaila	Katu, Madhura	Laghu, Ruksha	Sheeta	Madhura	Tridoshashamaka
21	Tejpatra	Katu, tikta, madhura	Laghu, Ruksha, Tikshna	Ushana	madhura	Kapha-vatahara
22	Yava	Kshaya, Madhura	Ruksha, Guru, Pichchhila, Mridu	Sheeta	Katu	Kaphapittashamaka
23	Madhu (Honey)	Kashaya, Madhura	Laghu, Ruksha, Sukshma, Picchila	Sheeta	Madhura	Tridosha shamaka

Rasa Panchaka of Contents of Drug Formulation Hingwadi Tail (Table no. 2)

Sr no.	Ingredients	Rasa	Guna	Virya	Vipaka	Dosha-karma
1	Hingu	Katu	Laghu, Snigdha, Teekshana, Sara	Ushana	Katu	Kapha-vatashamaka
2	Shunthi	Katu	Laghu, Snigdha	Ushana	Madhura	Vatakapha shamaka
3	Maricha	Katu	Laghu, Tikshna, Ruksha	Ushana	Katu	Kaphavata shamaka
4	Pippali	Katu	Laghu, snigdha, Teekshana	Anushna-sheeta	Madhura	Kaphavata shamaka
5	Vidanga	Katu, Kashaya	Laghu, Ruksha, Teekshana	Ushana	Katu	Kapha-vatashamaka
6	Katphal	Kashaya, Tikta, Katu	Laghu, Teekshana	Ushna	Katu	Kapha-vatahara
7	Vacha	Katu, Tikta	Laghu, Teekshana, Sara	Ushana	Katu	Kapha-vatashamaka
8	Kushtha	Tikta, Katu, Madhura	Laghu, Ruksha, Tikshana	Ushana	Katu	Kapha-vatashamaka
9	Ela	Katu, Madhura	Laghu	Sheeta	Madhura	Tridosha-shamaka
10	Laksha	Kashaya, katu, tikta	Laghu, tikshna	Ushna	katu	Kapha-vatahara
11	Punarnava	Madhura, tikta, kashaya	Laghu, Ruksha	Ushana	Madhura	Tridosha-shamaka
12	Musta	Tikta, Katu, Kashaya	Laghu, Ruksha	Sheeta	Katu	Kapha-pittashamaka
13	Kutaja	Tikta, Kashaya	Laghu, Ruksha	Sheeta	Katu	Kapha-pittashamaka
14	Tulasi	Katu, Tikta	Laghu, Ruksha	Ushana	Katu	Kapha-vatashamaka
15	Sarshapa murchhita	Katu, Tikta	Snigdha	Ushana	Katu	Kapha-vatashamaka
16	Gomutra	Madhura	Ushana, tikshna	Ushana	Katu	Tridosha-shamaka

Murchhana drugs: As per Ayurveda Sara Sangraha

Sr no.	Ingredients	Rasa	Guna	Virya	Vipaka	Dosha-karma
17	Haridra	Tikta, Katu	Ruksha, Laghu	Ushana	Katu	Tridoshashamaka
18	Manjishtha	Madhura, Tikta, Kashaya	Guru, Ruksha	Ushana	Katu	Kaphapittashamaka

Plan of work: The study was planned in different steps as mentioned below.

- 1. Proforma:** A special Proforma was prepared to maintain the records of the entire observations regarding the disease.

2. Investigations: The following laboratory investigations were carried out to assess the condition and to exclude any other pathology of the patients.

- (a) Haematology : Hb%, TLC, DLC, ESR
- (b) Biochemistry: Fasting Blood Sugar
- (c) Radiology : X-Ray P.N.S. Water's View

CLINICAL ASSESSMENT

To assess the improvement in symptoms of Sinusitis symptoms were graded in 4 gradations on the basis of severity & duration.

Criteria for the Assessment

The efficacy of the therapy was assessed on the basis of subjective as well as objective criterion. Most of the symptoms & signs of Sinusitis described in texts are subjective in nature. **Clinical Assessment:** *on the basis of subjective criterion:*

Facial pressure or pain or local sinus tenderness

Grade 0 – No pain or local sinus tenderness

Grade 1 – Present but no interference with daily Activities

Grade 2 – Present and some interference with daily activity

Grade 3 – Present with incapacitation.

Post nasal drip

Grade 0 – Nil

Grade 1 – infrequent

Grade 2 – frequent

Grade 3 – very frequent

Headache

Grade 0 – No headache

Grade 1 – Occasional headache not interference with daily activity

Grade 2– Intermittent headache and some interference with daily activity

Grade 3 – Continuous headache

Congestion or Stuffy nose

Grade 0 – Absent

Grade 1 –Occasional (1-2 episodes in a day not at regular intervals)

Grade 2 – More than 2 episodes in a day at regular intervals

Grade 3 – Continuous

Nasal discharge

Grade 0 – Absent

Grade 1 – Occasional scanty discharge

Grade 2 – Intermittently mucoid discharge

Grade 3 – Continuous muco-purulent nasal discharge with foul smell.

Fever

Grade 0 – Absent

Grade 1 – Low fever (99-100 degree F)

Grade 2 – Fever 100 degree F-102 degree F

Grade 3 – Fever more than 102 degree F

Bad breath

Grade 0 – Absent

Grade 1 – Occasional

Grade 2 – Intermittently

Grade 3 – Continuous

Pain in upper teeth

Grade 0 – Absent

Grade 1 - Present but no interference with daily activities

Grade 2 – Present and some interference with daily activity

Grade 3 – Present with incapacitation

Sense of smell

Grade -0 – Normal

Grade -1- mild hyposmia

Grade -2- Hyposmia

Grade-3- Anosmia

On the basis of objective criterion

For the purpose of assessing Chronic Sinusitis objectively, **X-ray PNS Water's view** was evaluated before and after the treatment.

Protocol of radiological evidence: on the basis of opacity.

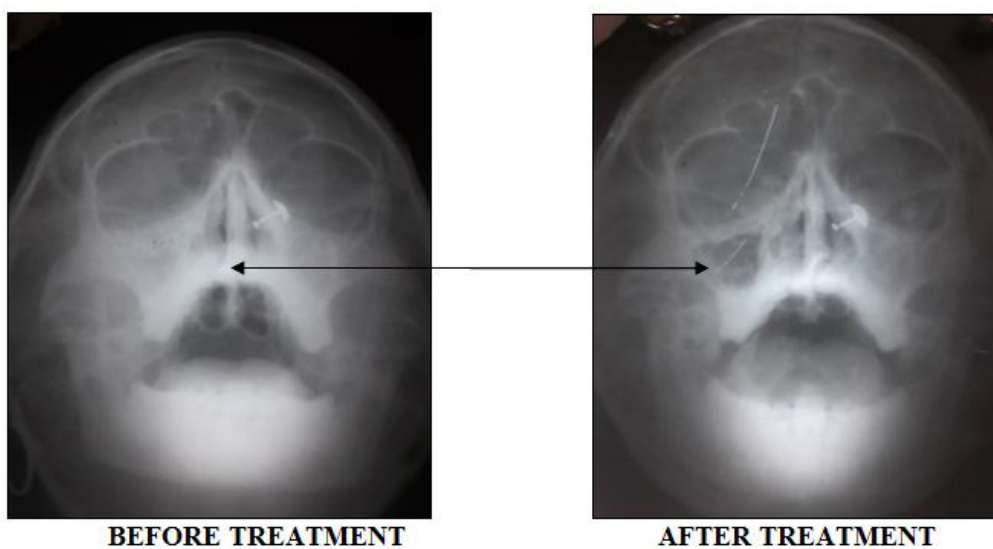
Grade -	0	-	Normal
Grade -	1	-	¼ of the sinus involved
Grade -	2	-	½ of the sinus involvd
Grade -	3	-	Whole of the sinus involved

Grading On the basis of Subjective criteria (Table No:3)

Sr. No.	Signs And Symptoms	Before Trial	After Trial
1.	Facial pressure or pain	2	0
2.	Post nasal drip	3	1
3.	Headache	2	0
4.	Congestion or stuffy nose	2	0
5.	Nasal discharge	3	1
6.	Fever	1	0
7.	Bad breath	1	0
8.	Pain in upper teeth	1	0
9.	Sense of smell	1	1

EFFECT OF THERAPY ON RADIOLOGICAL INVESTIGATIONS

(X.RAY PNS water's view)

**Note the haziness in maxillary sinus reduced after treatment**

(Arrows pointing the changes after treatment in two different trial patients)

Assessment of effect of therapy: The effect of the therapy was assessed in terms of cured, markedly improved, improved and unchanged.

The details are as follows-

1. **Cured:** 100% relief from all signs & symptoms was considered as totally cured.
2. **Markedly improved:** 76% to 99.99% relief from the signs & Symptoms was considered as markedly improved.
3. **Moderately improved:** 51% to 75.99% relief from the signs & Symptoms was considered as markedly improved.
4. **Improved:** 26% to 50.99% relief from the signs & Symptoms was considered as improved.
5. **Unchanged:** Less than 26% or no relief from the signs & Symptoms was considered as unchanged.

SO Patient had 81.25% change in signs and symptoms So Patient was markedely improved.

DISCUSSION

Pratishyaya is a *Vata-kapha* predominant *Tridoshaja* disease in which *kapha* etc *dosha* show movement towards nose under the influence of *vata dosha*.

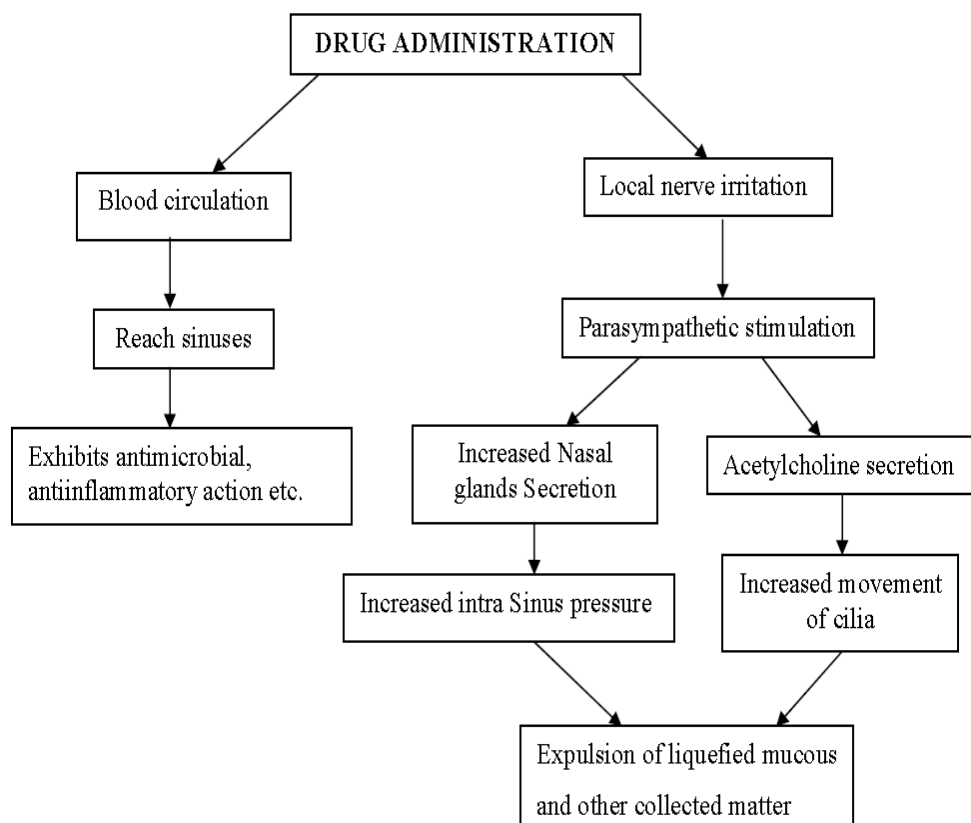
The trial drug ***Chitraka Haritaki*** is having *Tikta*, *Madhura rasa* (26.92% each) predominance followed by *katu rasa* (23.07%). The rest of indices there is predominance of *laghu guna* (28.07%), *ushana veerya* (69.56%), *madhura vipaka* (56.53%) and *vata-kaphashamaka* properties which are counteracting the *samprapti* (pathogenesis) of *dushta pratishyaya*.

The drug *Chitraka Haritaki* is having *tikta* & *madhura rasa* predominance. *Tikta rasa* as per *Ch.Su.26* has been credited with *krimighana* & *jwaraghna* properties which help to reduce infection & fever respectively. In the same context *lekhana*, *shleshma-upshoshana* etc. properties help to reduce *kapha* i.e. discharge in the sinuses. The *madhura rasa* being *marutaghana* helps to reduce excessive discharge tendency. Similarly *madhura vipaka* acts. Third dominant *rasa* is *katu* i.e. 23.07% having properties like *ghranam asravayati*, *shwayathu anupahanti*, *krimi hinasti*, *marga vivrinoti* as per *Ch.Su.26* helps a lot in reduction of signs & symptoms of chronic sinusitis, which will be discussed under following mode of action of *Hingwadi tail*. The dominant *Guna* of the annexed drug *Chitraka Haritaki* is *laghu*, that helps in relieving symptoms like heaviness around the area of paranasal sinuses. As the *Pratishyaya* is aggravated or initiated with cold food habits & environmental conditions, *ushana veerya* predominance leads to combating with this precipitating factor. Also *ushana*

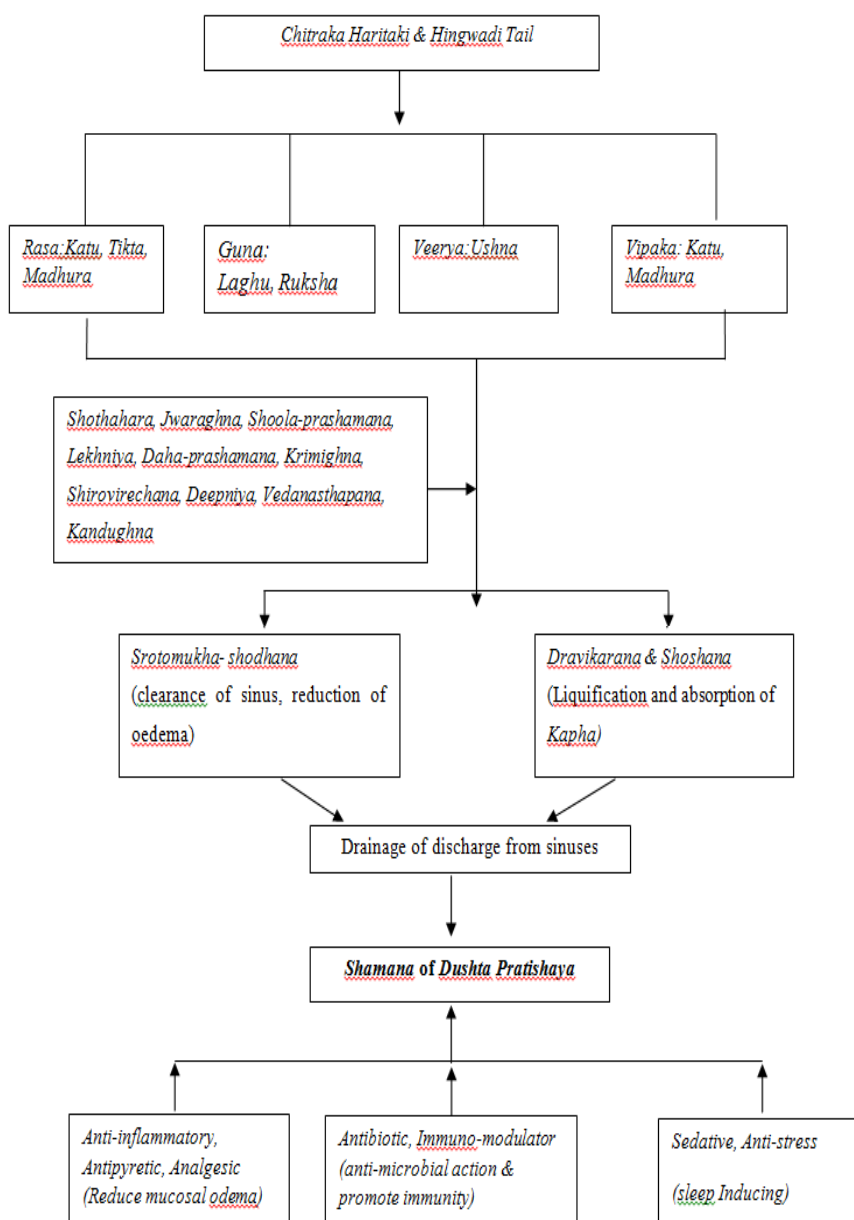
veerya affects in reducing *kapha* i.e. discharge or over secretions & helps to reduce *kapha* and *vata*, so acts against the *vata kaphaja* predominance of *Dushta Pratishyaya*.

The other trial drug i.e. *Hingwadi Tail* as *Nasya* is having predominance of *Katu rasa* (37.83%), *laghu guna* (36.58%), *ushana veerya* (77.78%), *katu vipaka* (77.78%) and *kapha-vata shamaka dosha karma* which is also counteracting the *samprapti* of *Dushta Pratishyaya*.

The drug *Hingwadi Tail* was used as *nasya* (nasal drops). There is *katu rasa* predominance, the actions of which like *ghranam asravayati*, *shwayathu anupahanti*, *krimi hinasti*, *marga vivrinoti* as per *Ch.Su.26* helps a lot in reduction of signs & symptoms of chronic sinusitis. *Ghranam asravayati* property acts as mucolytic i.e. thinning of secretions, *shwayathu anupahanti* property reduces regional oedema around ostia and *marga vivrinoti* helps to opening of channels i.e. ostia of sinuses. Along with *krimighna* i.e. action of contents of *Hingwadi Tail nasya* helps to clearance of sinuses through their respective ostia. Again *laghu guna* relieves the oedema of nasal mucosa and clears the osteo-meatal complex. *Ushana veerya* affects in reducing *kapha* i.e. discharge or over secretions. *Katu vipaka* also serves same functions as explained in *katu rasa* actions.



Probable mode of action of both the drugs in chart form is as follows



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