Abstract: Pratishyaya is one among Nasagata Roga (Disorders of the nasal cavity). Symptoms of Pratishyaya resemble those of Rhinitis. Children are more likely to develop Pratishyaya, which disturbs their daily activities and may hamper their growth and development. There is no use of antibiotics in acute rhinitis. There is limited data regarding the safety of Pseudoephedrine and phenylephrine in rhinitis. There is a need to find the best Ayurvedic interventions to prevent and cure Pratishyaya (Rhinitis). Previous review articles were alike and included the conceptual study of Pratishyaya. Articles should have included proper classification, indications, and contraindications of Shodhana (Biocleansing therapy) and Shamana (Palliative procedure). No review article focused on Pratishyaya and its management in the pediatric population. There is a need to classify Shodhana karma and Samshamana therapy in Pratishyaya along with their indications and contraindications and to review the Pratishyaya in pediatric population. Disturbance of digestive fire and production of Ama (toxins) causes vitiation of Doshas and obstruction of channels which produces symptoms. Shamana treatment should be administered in the acute stage to digest vitiated Doshas and Shodhana therapies like Nasya are to be given in the chronic or recurrent stage of Rhinitis. Improper milk intake and sleep intake can lead to Pratishyaya in breastfeeding babies. Dhoompana (herbal fumigation of the nasal cavity) is effective but is not indicated for children below 7 years of age. So, local nasal administration of fumes (Dhoopana) can be adopted for its management.

Keywords: Pratishyaya, Rhinitis, Allergic Rhinitis, Nasya, Pediatric, Kashyapa, Nasya, Dhoompana, and Dhoopana.
1. INTRODUCTION

1.1. Background

"Pratishyaya" refers to the variety of discharges produced when accumulated bodily humor becomes lodged in the nose. Pratishyaya is among Nasagata Roga (Disorders of the nasal cavity) in which Kaphadi Doshas are continuously eliminated through the nose. These vitiated Doshas accumulate in the head, and their further movement towards the nose causes Pratishyaya. It is a Kapha-Vata dominant disease that is difficult to treat and is characterized by Nasasrava (Nasal discharge), Nasanaha (Nasal Congestion), Shirogourava (Heaviness), and Anadhwapihita Nasa (Intermittent nasal obstruction). These Lakshana (Symptoms), which are those of Pratishyaya as described in the texts of Ayurveda, resemble those of rhinitis. In rhinitis, nasal mucosa is inflamed due to infection, allergy, or injury. The nasal mucosa has a rich blood supply, and stimulation of the sympathetic nervous system causes vasoconstriction, which further results in shrinkage of the nasal mucosa. On the other side, stimulation of the parasympathetic system is responsible for excessive secretion from the nasal mucosa and local vessel dilatation. Emotional disturbance also plays a significant role as the hypothalamus controls the autonomic nervous system supply of nasal mucosa. If no treatment is given early, it may get complicated and lead to other comorbid conditions like chronic rhinitis, cough, or breathing difficulty with debility. Children are more likely to develop Pratishyaya, which disturbs their daily activities and may hamper their growth and development. There is no connection between immunization and routine infections like rhinitis. Vaccination provides immunity against specific diseases, not against routine infections, which depend on the child's general immunity. There is no use of Antibiotics in acute Rhinitis. Antihistamine–decongestants are frequently used for cough and cold. Still, in some studies, these were ineffective in managing rhinitis. There is limited data regarding the safety of Pseudoephedrine and phenylephrine in rhinitis. Hence, there is a need to find out the best Ayurvedic interventions which can be used for prevention as well as cure of Pratishyaya for both adults and pediatric populations. The study aims to evaluate the conceptual study of Pratishyaya which includes classification, etiology, pathogenesis, prodromal symptoms, general and specific signs and symptoms of Pratishyaya mentioned in various ayurveda classics. The objective of our study is to review Shodhana (cleansing therapy) and Shamana (palliative procedure) therapy in Pratishyaya and evaluation of the Pratishyaya in pediatric population.

1.2. Epidemiological Study of Rhinitis

The prevalence of non-allergic rhinitis is about 40%. In India the prevalence of allergic rhinitis was reported 11.3% in children aged 6-7 years and 24.4% in children aged 13-14 years. A serious global health problem over the past 10 years, allergic rhinitis now affects anywhere from 1% to 25% of the world's population and is getting more prevalent daily. According to the World Allergy Organization, allergic rhinitis affects 400 million individuals globally (WAO). In India, the incidence of allergic rhinitis is 20%-30%.

1.3. Need of the study

1) There is a need to classify Shodhanakarma (bio-cleansing therapy) and Samshamana (palliative procedure) therapy in Pratishyaya along with their indications and contraindications. 2) To fulfill the research gap of previous review articles related to Pratishyaya. 3) To review the Pratishyaya in pediatric population and find out suitable Ayurvedic Interventions.

1.4. Lacunas of early studies

Articles reviewed by Pratishyaya are compiled in the present study. It was found that all the articles were alike, which includes the conceptual study of Pratishyaya. Articles should have included proper classification, indications, and contraindications of Shodhana and Shamana and management of Pratishyaya as per the age group.

Table No.1. Review of previous studies

<table>
<thead>
<tr>
<th>S.No</th>
<th>Author Name</th>
<th>Title of the Review Article</th>
<th>Conclusion</th>
<th>Lacuna</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pinki Meena, Aparna Sharma, and Ish Sharma</td>
<td>Ayurvedic Literature Review of Pratishyaya w.s.r. Rhinitis</td>
<td>Ayurvedic formulations can be adopted for more effective, non-chemical treatment of Pratishyaya. All formulations are proposed to be evaluated for their effect in Pratishyaya w.s.r to rhinitis to develop a safe and cost-effective treatment for this ailment. Classification of Shodhana and Shamana in the treatment protocol for Pratishyaya is not mentioned in the article. Contraindications of local nasal administration of medicine in Pratishyaya are not mentioned. Management of Pratishyaya in Children is not specified.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Shubham Bafna, Sudha Singh, Deodas Madhavi and Wankhede Prashant</td>
<td>Allergic Rhinitis and Its Ayurvedic Perspective</td>
<td>The use of modern medicines for Rhinitis can provide relief in symptoms but does not prevent from occurrence of the disease. Therefore, Vataja Pratishyaya is correlated with Allergic rhinitis and the use of Ayurveda treatment protocol is emphasized to prevent and cure Pratishyaya. Etiological factors like Dhoom and Raja Sevan (Inhaled dust particles and allergens) and Ati Sheeta (Exposure to extreme cold) do not cause Vataj Pratishyaya only; Rather, these are general causative factors for all types of Pratishyaya. Moreover, symptoms of Pittaja and Kaphaja Pratishyaya can also be comparable with Allergic</td>
<td></td>
</tr>
</tbody>
</table>
Table no.1 illustrates specific lacunas of previous review articles on Pratishyaya. Common lacuna is that none of the studies mentioned Pratishyaya in the pediatric population, and the proper classification of Shodhana and Shamana needs to be specified. These articles must also include the classification and justification of treatment protocol for acute and chronic Pratishyaya. The first review article is focussed on a conceptual study of Pratishyaya w.s.r. to Rhinitis, but the pediatric population was not included in the review. The second and third articles focussed on Vataja Pratishyaya only, and it was compared to Allergic rhinitis. But etiologies of Pratishyaya mentioned in Ayurveda literature can cause Pittaja and Kaphaja Pratishyaya also. Moreover, Shamana and Shodhana procedures for its management are not classified separately in the same article. The fourth article also focussed on Allergic rhinitis, but the pediatric population was not included in the study. The fifth article also reviewed Pratishyaya and concluded that Pratishyaya could be prevented by avoiding its causative factors. Still, it did not focus on the pediatric population as per Ayurveda Literature.

### 1.5. Aim & Objectives

The study aims to evaluate the conceptual study of Pratishyaya, which includes classification, etiology, pathogenesis, prodromal symptoms, and general and specific signs and symptoms of Pratishyaya mentioned in various classics. The objective of our study is to review Shodhana and Shamana therapy in Pratishyaya and evaluation of Pratishyaya in the pediatric population.

### 2. MATERIALS AND METHODOLOGY

All available Ayurveda classics and modern textbooks were searched for the subject of study. Previous research works, articles and journals, and information regarding the subject...
were searched from all available sources. Databases like Pubmed, Google Scholar, Dhara portal, and AYUSH portal were searched for the study.

3. RESULTS

3.1. Evaluation of Conceptual Study of Pratishyaya

Acharya Charaka described Pratishyaya in Chikitsa Sthana. Acharya Sushruta mentioned Pratishyaya in Uttara Tantra. In Madhav Nidana, it is mentioned in the second part of the treatise. In Sharangdhar Samhita, it is described in Pratham Khanda. Acharya Bhavprakash and Chakra Dutta described the disease in Chikitsa Prakaran.18

3.2. Classification

Acharya Sushruta, Vagbhatta, Madhavakar, Bhava Mishra, and Sharangadhara described the five different types of Pratishyaya. Vataja, Pittaja, Kaphaja, Sannipataja, and Raktaja. Raktaja Pratishyaya has yet to be described by Acharya Charaka and Kashyapa. Six distinct Pratishyaya categories are listed in Rasa Ratna Samuchaya.

3.3. Nidana (Causative factors)

Various etiological factors of Pratishyaya are mentioned in Ayurveda classics. These are mainly classified as Aharaja (related to diet), like reduced digestive fire, indigestion, excessive intake of water, cold items, and excessive intake of dry, heavy, and sweet food items. Viharaja (related to lifestyle), like exposure to dust and smoke, holding of natural urges, excessive talking, day sleep, bathing during indigestion, and Mansik (psychological factors), like excessive anger.19,20

| Table No. 2 Description of etiological factors mentioned by Different Acharya |
|-----------------------------------------------|----------------|----------------|----------------|----------------|
| Ahara (dietary) | C.S. (Charaka Samhita) | S.S. (Sushruta Samhita) | A.S. (Ashtanga Sangraha) | K.S. (Kashyapa Samhita) |
| Ajeerna (Indigestion) | + | | | |
| Mandagni (Low digestive fire) | | + | | |
| Vishamashanam (Improper diet intake) | | | + | |
| Atiguru, Madhur, Sheeta, Ruksa Sevan (Intake of excessive heavy, sweet, cold, and dry food items) | | | | + |
| Atjalopana after meals (Intake of excessive water after food) | | | | + |
| Athisheetambupanam (Excessive intake of cold water) | | | | + |
| Viharaja (Behavioural) | C.S. | S.S. | A.S. | K.S. |
| Vega sandharana (Holding of natural urges) | + | + | + | + |
| Rajahdnamravasan (Exposure to air/dust and smoke) | | + | + | + |
| Shirasabhipatam (Heating of head) | + | | | |
| Rutvaishamyam (Seasonal variations) | + | | | |
| Atisambhasanam (Excessive talking) | + | | + | |
| Prajagrat involving (Awakening during sleep time) | + | | + | |
| Atinariprasang (Excessive indulgence in sexual activities) | + | | + | |
| Dvaswapnam (Day sleep) | | | + | |
| Apavritramukhashayanam (Not maintaining hygiene) | | | | + |
| Snana in Ajirna (Bathing during indigestion) | | | | + |
| Tapa Sevana (Exposure to hot things) | | | | + |
| Mansik Hetu | C.S. | S.S. | A.S. | K.S. |
| Atikrodha (Excessive anger) | | | | + |

* Indicates mentioning of description

Table no. 2 illustrates the classification of various etiological factors of Pratishyaya according to Acharya Charaka, Sushruta, Vagbhatta, and Kashyapa. Holding natural urges is the commonest etiological factor mentioned by all Acharyas. Exposure to air and dust particles is the second common causative factor. Heating of the head, excessive talking, awakening during sleep time, and excessive indulgence in sexual activities are other causes of Pratishyaya mentioned by Acharya Charaka, Vagbhatta, and Sushruta. Improper diet intake, low digestive fire, indigestion, unhygienic conditions, excessive water intake after food, exposure to hot things, and excessive anger are the rest of the causes for Pratishyaya which are not commonly mentioned by all Acharyas.

3.4. Samprapti (Pathogenesis)

During the early stages of the disease phase, a range of exogenic and endogenic factors might worsen Tridoshas. Illness occurs from an imbalance, whereas health comes from the proper functioning of the Dosha, Agni, Malas, and balanced state of Atma, Mana, and Indriya. Agnimandhya or a weakening of the digestive fire is first brought on by
exposure to etiological stimuli. This produces vitiation of 
Rasavaha, Raktavaha, and Pranavaha Srotodushti, which in turn 
causes vitiation of Udanvayu, Tarpaka Kapha, and Bhrajaka 
Pitta. It further results in Sthanasamsrya of Doshas in the head, 
which causes the disease Pratishyaya.

3.5. **Purva Roopa (Prodromal symptoms)**

Acharya Sushruta, Madhava, and Bhavprakasha mention 
prodromal symptoms such as,
1. Shirogurutvam (Heaviness of head)
2. Kshvathupravartanam (Sneezing)
3. Angamarda (Bodyache)
4. Parihristaromta (Horripilation)

3.6. **Roopa (Signs and symptoms)**

If no treatment is given at the prodromal stage, then signs 
and symptoms of the disease Pratishyaya are seen. Acharya 
Charaka has not mentioned prodromal signs; rather, he only 
described Roopa (Signs and symptoms). General signs and 
symptoms are described below.

<table>
<thead>
<tr>
<th>Dosha</th>
<th>C.S (Charaka Samhita)</th>
<th>S. S (Sushruta Samhita)</th>
<th>A.H (Ashtanaga Hridaya)</th>
</tr>
</thead>
</table>

---

Fig 1. Samprapti of Pratishyaya (Pathogenesis)
Table no. 3 shows a comparison of the sign and symptoms as per Doshas according to Acharya Charaka, Sushruta, and Vagbhatta. Thin and watery discharge from the nose, pricking pain over the nose and forehead, dry mouth, and hoarseness of voice are the common signs and symptoms due to Vata Dosha predominance. Pitta Dosha involvement causes hot and yellowish discharge from the nasal cavity with thirst and inflammation over the tip of the nose. Kapha predominance is identified by thick whitish discharge from the nasal cavity with local itching, heaviness of the head, and anorexia. Raktaja Pratishaya is mentioned by Acharaya Sushruta and Vagbhatta only. It is identified by copper color eyes, foul smell, breath, loss of sensation of smell, and worms in the nose, along with other signs and symptoms of Pitta Pratishaya. Sannipataja is characterized by clinical features of involvement of all three Doshas; it occurs frequently and stops suddenly.

3.7. Evaluation of Shodhana and Shamana therapy in Pratishaya.

3.7.1. General treatment protocol for Pratishaya

Nidana Parivarjan (Avoiding etiological factors should be the initial management). Langhana for 5 days is advised in Pratishaya before starting any medicinal treatment.29Ama avastha (Acute stage) is managed by Langhana (Fasting/Light diet), Pachana, and Shamana includes medicinal treatment given orally to manage signs and symptoms, Swedana and Dhoompana. In Pakavastha (Chronic Stage), Shodhana is did by Nasya Karma, Virechana, Vanama, Asthapan and Kaval Graha.30

3.7.2. Diet and lifestyle are advised in Pratishaya.

Nivata vasa (Stay in the environment free from the draft of air), Ushnavastrodhara (Wearing warm clothes), Laghu, Amla, Lavana, Snigdha, Ushna, Dravarahita Bhojana (Intake of light, light, salty, buttery, warm, and liquid diet), Mangalamansarasara (Nonveg/meat soup), Yogadhuma, Guda, Ksheera and Ushnajal (Use of barley, wheat flour, jaggery, milk, and warm water) and Yusha seven (Intake of liquid soup).31

3.7.3. Contraindication of Nasya Karma and indication of Dhoompana in Acute stage of Pratishaya along with their probable mode of action

Nasal instillation of oil is not indicated in Nasya Pratishaya (Acute stage of Pratishaya) as nasal mucosa secretes a large amount of mucus in the early stage, and the nasal cavity is full of secretions in the early stage. So, space is unavailable to absorb the drug instilled in the nose. In Jeema Pratishaya (chronic Rhinitis), the secretions are diminished; hence, Nasya can be given at this stage.32 The oil used for Nasya in Pratishaya acts through its Sukshma and Vyayay properties. It crosses microchannels, removes obstruction of sinus ostia, and facilitates sinus drainage and ventilation. Pradhamana Nasya (Powder instillation in the nasal cavity) causes irritation which liquefies thick mucus and expels it from the nose. In Dhoompana, fumes are a gaseous medicine that increases its bioavailability. Dhoompanadravya, when lightened with fire, it releases smoke, CO₂, and soot. The carbon atom tends to stimulate the respiratory center in the brain, which may trigger the normal physiological function of the respiratory system. It also cleanses the respiratory tract through its disinfective action.33

3.7.4. Vishesh chikitsa (Specific management as per predominance of Doshas)

Specific management is advised as per Doshik Predominance, like intake of hot liquids (soup, meat soup), medicated ghee (prepared from Vata alleviating drugs), poultice fomentation, and medicated enema in Vataja Pratishaya. In addition, intake of medicated ghee (prepared from Pitta alleviating drugs), fomentation with lukewarm liquids, milk consumption, application of medicines in the form of paste and purgation in Pittaja Pratishaya and fume inhalation, medicated ghee (prepared from Kapha alleviating herbs), application of hot medicated paste over the forehead and induced vomiting are advised in Kaphaja Pratishaya.

Table 4. Description of Vishesh Chikitsa (Specific Management) of Pratishaya

<table>
<thead>
<tr>
<th>Dosha</th>
<th>C.S. (Charaka Samhita)</th>
<th>S.S. (Sushruta Samhita)</th>
<th>A.H. (Ashtanga Hridaya)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittaja</td>
<td>Ghritapana, Dugdhpajana, Nasya, Parishechana Lepa (Pradeha), Virechana</td>
<td>Ghritapana, Nasya, Parishechana Lepa (Pradeha), Virechana, Kawala Dharana</td>
<td>Ghritapana, Nasya, Parishechana Lepa (Pradeha)</td>
</tr>
<tr>
<td>Kaphaja</td>
<td>Ghritapana, Yamana, Nasya, Langhana, Dhumarapana, Shire Ghrita, Sweda, Parisheka</td>
<td>Ghritapana, Yamana, Nasya, Dhurmavarti, Antarika, Aushadhisevani</td>
<td>Ghritapana, Yamana, Nasya, Langhana</td>
</tr>
</tbody>
</table>
Sannipataja

Table no.4 illustrates a comparison of specific management as per Acharya Charaka, Sushruta, and Vagbhatta. Intake of ghee and unctuous milk or meat soup, along with local fomentation and therapeutic cleansing of the head, is commonly indicated in Vata predominance Pratishyaya. Acharya Charaka also mentioned local fume inhalation and therapeutic enema in its treatment protocol. Pitta predominant Pratishyaya is managed by oral administration of ghee, nasal instillation of oil, local application of medicated paste, and local administration of medicated liquids. Acharya Charaka also mentioned Virechana (Therapeutic purgation) in its treatment protocol. Kapha predominance Pratishyaya is managed by intake of ghee, Vamana (Therapeutic vomiting), Ghritapana, Shirovirechana, Kawala Dharana.

Fasting, local application of ghee over the forehead, nasal instillation of oil, and nasal herbal fume inhalation. Acharya Sushruta and Vagbhatta give treatment protocol for Sannipataja Pratishyaya. It includes oral intake of ghee, local herbal fume inhalation, therapeutic cleansing of the head through the nasal cavity, and oral intake of medicines.

3.8. Evaluation of Pratishyaya in pediatric population as per Kashyapa Samhita

Kashyapa Samhita is Ayurvedic literature of Kaumarbhritya speciality. So, Kashyapa Samhita is reviewed for evaluating the Pratishyaya in pediatric population.

3.8.1. Specific Etiology

Table 5: Classification of Etiologies of Pratishyaya in Childhood

<table>
<thead>
<tr>
<th>Etiology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aharaja (Dietary)</td>
<td>Intake Heavy, sweet, cool, and dry food items.</td>
</tr>
<tr>
<td></td>
<td>Intake of cold water by a Kapha predominant person.</td>
</tr>
<tr>
<td></td>
<td>Excessive Intake of fluids after taking meals.</td>
</tr>
<tr>
<td></td>
<td>Weak digestive fire and intake of improper diet.</td>
</tr>
<tr>
<td>Viharaja (Lifestyle related)</td>
<td>Exposure to cold water by a Kapha predominant person</td>
</tr>
<tr>
<td></td>
<td>Holding of natural urges.</td>
</tr>
<tr>
<td></td>
<td>Sleeping in improper posture, sleeping in same posture for prolong period, sleeping with covering face.</td>
</tr>
<tr>
<td>Aharaja and Viharaja (Diet and Lifestyle related)</td>
<td>Satatamdwividhamvastanyampeetvapeetvaswapatonityam (frequent sleeping after intake of two types of milk) (breast milk and any other milk).</td>
</tr>
<tr>
<td></td>
<td>Bathing after taking heavy meals and during indigestion.</td>
</tr>
</tbody>
</table>

Table No.5 illustrates etiologies of Pratishyaya as per Kashyapa Samhita. Some factors are related to diet, like heavy, cool, sweet, and dry food items, intake of excessive fluids after taking food, improper food intake and excessive liquids after taking food, especially by the people with Kapha predominance. Some are lifestyle-related causes like exposure to cold water, especially by the predominant kapha person, holding of natural urges, and wrong body postures during sleeping. Some factors include dietary and lifestyle related, like the child’s intake of two types of milk, sleeping after taking milk and bathing after taking heavy food items, and indigestion.

3.8.2. Pathogenesis

Vitiated Vata moves upwards and approaches the head; it further vitiates the face and ear and accumulates in the nasal cavity root accompanied by the remaining Doshas (Kapha, Pitta, or Rakta). It produces symptoms of Pratishyaya.

3.8.3. Types and Symptoms

Four types- Vataja, Pittaja, Kaphaja and Sannipataja. In Vataja Pratishyaya, the child cries a lot with a loss of happiness. Other symptoms are sneezing and expulsion of thin discharge from the nasal cavity during sleeping. Pittaja Pratishyaya presents with fever, thirst, burning sensation, dryness of the palate, and sepsis in the nasal and oral cavities. Kaphaja Pratishyaya is chronic. It remains long and presents with symptoms of anorexia, nausea, heaviness in the head, excessive secretions, sneezing, indigestion, and heaviness over the chest. “Vatashleshmottarahprayahpratishyayahtridoshaja” Vata and Kapha dominant Pratishyaya is usually Tridoshaja. Acharya Kashyapa described some specific signs and symptoms of Peenasal/Pratishyaya for a neonate in Vedanaadhyaya as follows frequent mouth breathing during breastfeeding, discharge from the nasal cavity, hotness of forehead, sneezing, coughing, and baby use to touch his nose and mouth frequently.
3.8.4. Pratishyaya and its associated Updrava (Co-morbidities)

Acharya Kashyapa mentioned many co-morbidities about Pratishyaya. For example, aggravated Vata Dosha, when it enters the oral cavity, causes Mukha roga (diseases of the oral cavity), and when it enters in ears causes Karna roga ear disorders. Hence, Vata gets stuck in the head region, nose, and oral cavity, which causes a change in the sensation of smell. It may cause loss of smell. Kapha aggravation causes unclear passages, and Pitta aggravation causes putrefaction and a bad smell.

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**Fig 2: Recognizing Pratishyaya in childhood**

**Fig 3: Relationship of Pratishyaya and its Updrava**
3.8.5. Treatment Protocol

Upvasa (Fasting), Deepaniyambu (Intake of medicated decoction), Nivatshayanasana (living in a hot environment free from a draft of air), Agnipravarana (Wearing warm clothes), Dhoompana (Medicated fume inhalation), Laghu ushnaanna (Intake of light and warm food) and Natisampibet (less fluid consumption). Ghritpana (Intake of ghee) in chronic Rhinitis and Black pepper should be kept in the mouth daily in Pratishyaya. The mother or caretaker of the child is advised to give proper care to the child during Pratishyaya. Nasal fume inhalation and Nasal cavity fumigation are both treatment modalities mentioned separately in Siddhisthana. As Dhoompana is difficult to administer in children and is not indicated before 12 years of age, Dhoompana could be a better choice to manage symptoms of Pratishyaya in children. Acharya Kashyapa has given the concept of Lehana (Licking of immunomodulatory formulations) to enhance the immunity of a baby. One study found that monthly use of Swarnaaprasana for six months can reduce the frequency of recurrent illness in children. Hence, regular use of Ayurvedic immunomodulatory measures is recommended in the pediatric population for prevention of rhinitis.

4. DISCUSSION

As per Ayurveda, Agnimandhya (Low digestive fire) is the root cause of the development of any disease. It produces Ama (toxins) in the body, which causes blockage of channels, vitiates Doshas, and produces disease. Causative factors of Pratishyaya, like intake of heavy diet, cold food items, indigestion, daytime sleep, exposure to cold, and suppression of natural urges, cause disturbance of Agni (digestive fire). Hence, avoidance of all the mentioned causative factors is necessary to prevent Agnimandhya. As per Ayurveda literature, cold water exposure or immersion in cold water causes Pratishyaya. One previous study found that cold water immersion of the hand and forearm causes nasal obstruction. Rhinitis can be due to allergies or infectious agents like viruses or bacteria. Vata predominant Pratishyaya is correlated with allergic rhinitis. Ayurveda says that ingesting heavy food items can produce symptoms of Pratishyaya. It is proven that some food items like eggs, milk, cereal mix, cashew nut, and peanuts are potent allergens, and their intake induces an allergic response in the body and produces symptoms of rhinitis. Exposure to a draft of air, smoke, or dust can produce allergic reactions in the body. In one of the previous studies, it was shown that traffic air pollution is a risk factor for pediatric airway diseases. As per ayurveda classics, indigestion is one of the causative factors for Pratishyaya, and it is scientifically proved that gastritis and Gastroesophageal reflux disease (GERD) is strongly associated with non-allergic nasal disorders. In one previous study, it was found that esophageal stimulation with normal saline and HCL increased nasal mucus production; it was due to neural reflex between the esophagus and paranasal sinuses. Symptoms of Pitta and Kapha predominant Pratishyaya mimics Infectious Rhinitis due to occurrence of fever, nasal congestion, heaviness in the body and nasal obstruction with thick discharge. Infectious rhinitis are spread by droplets and considered as airborne infection. As per Ayurveda classics, symptoms of Pranava Srotas (Respiratory channel) and airborne infectious disease are quite similar. Langhana helps in the correction of Agni and vitiated Doshas. It is scientifically proven that fasting promotes the mechanism of autophagy and helps in the prevention and treatment of various chronic diseases. Intake of a hot and liquid diet is prescribed in treating Pratishyaya. Intake of hot liquids and chicken soup by a sip or straw increases nasal mucus velocity. It is superior to cold liquids in managing upper respiratory tract infections. Swedana is indicated in Pratishyaya. Steam inhalation has proven to improve nasal obstruction in rhinitis. Shamana includes medicines having Katu (Pungent) and Ushna (hot) properties, which alleviate Vata and Kapha. Herbs like Aristolochiabracteata Retz, Curcuma longa, Allium sativum L, and Embelianibes Burm. f. were found effective against the influenza virus. Herbs like Piper longum, Ocimumtenuiflorum, Solanum xanthocarpum, Azadirachta indica, Aloe vera, and Tinospora cordifolia were proven as safe antiallergic agents. Shodhana involves local as well as systemic purification therapies. Dhoompana is effective in the

![Fig 4: Proposed approach to the clinical management of Rhinitis in young children](image)
acute stage, and Nasya is effective in chronic and recurrent Rhinitis. In chronic and recurrent Rhinitis, systemic purification like Vamana and Virechana are also indicated per the involvement of Doshas. Acharya Kashyapa has given the concept of vitiated breast milk which can cause Agnimandhya in the child and cause Pratishthaya. A neonate consuming both breast milk and bottled milk may develop Rhinitis due to unhygienic conditions, indigestion, and lack of proper nutrients from mother’s milk which causes vitiation of Doshas. Frequent and improper sleeping can cause vitiation of Vata and Kapha, which may cause Pratishthaya. Due to excessive intake of junk food items, unawareness regarding health and hygiene, and exposure to the environment and infectious agents, school-going children are more prone to recurrent upper respiratory tract infections.9

As per Kashyapa Samhita, various comorbidities are associated with Pratishthaya which, including eye diseases, oral cavity, head diseases, putrefaction, and bad odor or loss of smell from the nose. Due to the functional and anatomical links between the nose, eyes, nasopharynx, paranasal sinuses, middle ear, and larynx, the infection may spread from the nose to other adjacent parts. It can lead to various comorbidities like effusion of the middle ear, eustachian tube dysfunction, headache, conjunctivitis, middle ear effusion, eustachian tube dysfunction, hyposmia, or anosmia.55

5. CONCLUSION

Pratishthaya is a respiratory tract disease caused by various etiological factors that disturb metabolic activities and lead to the visualization of symptoms. Symptoms are classified based on the predominance of Doshas. And treatment can be decided because of the acute or chronic stage of the disease. Shamana and Shodhana are both effective in the management of Pratishthaya. The pediatric population must be protected from recurrent infections like Rhinitis using Ayurveda protocols like Swarna Prasharshana. Intake of two types of milk should be avoided in neonates; mothers should be encouraged to provide exclusive breast milk to their babies. Hot and liquid food items with avoidance of exposure to direct air and smoke must be advised to all children suffering from rhinitis. Herbal medicines and local nasal interventions must be given to manage the symptoms. People must know the importance of a healthy diet, lifestyle, and hygienic practices.

6. FUTURE SCOPE

At the time, standardization of Ayurvedic treatment protocols for managing rhinitis is a need. Dose, Dosage form, and Palatability of medicines are major issues with using Ayurvedic medicines. It needs to be fixed and resolved. Management of acute rhinitis by using ayurvedic interventions must be accomplished. There is need for more studies regarding the efficacy of local herbal interventions like Dhoopana in Pratishthaya in the pediatric population. So, this area must be focussed for future research.

7. AUTHORS CONTRIBUTIONS STATEMENT

Dr. Monika did the initial literature collection work and conceptualized, designed, and collected the related data regarding this review study. Dr. Renu Rathi, Dr. Bharat Rathi, and Dr. Deepthi Balakrishnana supervised and analyzed the data. Also, necessary inputs regarding modern and Ayurveda were given in designing the review article.

8. CONFLICT OF INTEREST

Conflict of interest declared none.

9. REFERENCES


