



## LETTER TO THE EDITOR

### Allergic rhinitis approach in primary healthcare

Birinci basamakta alerjik rinit yaklaşımı

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To the Editor,

Rhinitis which refers to the inflammation of nasal membranes is a disease characterized by any of the symptoms such as sneezing, nasal congestion, nasal itching, and nasal discharge, or a combination of these symptoms. The eyes, ears, sinuses, and the throat can also be affected. Allergic rhinitis, which is the most common reason for rhinitis, can be seen in prevalence varying between 10-30% across the population and 13% in children. Allergic rhinitis is frequently encountered in primary healthcare services and can be easily treated. Allergic rhinitis includes the inflammation of nasal mucous membranes, eyes, Eustachian tube, middle ear, sinuses, and pharynx. The complex interaction of inflammatory mediators characterizes the inflammation of mucous membrane; however, ultimately, secondary protein response is achieved through the triggering of IgE<sup>1-3</sup>.

Allergens enter the nasal mucosa through respiration and then, combine with the IgE antibodies on mast cells. Because of this combination, additional substances are released particularly histamines, which leads to expansion in mucosal veins, edema on tissues, and increase in secretion<sup>2,4,5</sup>.

Taking a detailed anamnesis is important in terms of the evaluation of allergic rhinitis and especially determining specific triggers. The characteristics of symptoms, the duration, and occurrence time should be included in the evaluation. Another factor that needs to be considered is the use of medication. Since it can have a genetic foundation, allergic disease history in the family, environmental exposure, and

the combination of both are other important factors<sup>1,3-6</sup>.

Based on the prevalence, duration, and characteristics of the symptoms, allergic rhinitis can be divided into 4 main groups: seasonal, continuous, continuous with seasonal variance, and occupational. Triggering factors can sometimes be defined, such as exposure to pollen, mold spores, specific animals or cleaning the house. Smoking, environmental pollution, and strong odors can cause allergic rhinitis symptoms to get worse. Responding to the treatment with antihistamines supports the diagnosis of allergic rhinitis<sup>1-4,6-8</sup>.

Sneezing, itching (nose, eyes, ears), nasal discharge, postnasal discharge, nasal congestion, anosmia, headache, earache, watering of eyes, red eyes, and sleepiness can be counted among the symptoms associated with allergic rhinitis<sup>1-4,7</sup>.

Another symptom of allergic rhinitis is darkening around the eyes which is also seen in allergic exacerbations and is associated with the common finding of nasal congestion or vasodilation. Nasolabial folds can be observed in some cases. These horizontal wrinkles form the so-called allergic salute along the lower half of the nasal bridge when the tip of the nose is rubbed upwards with the palm of the hand. Conchas can be edematous and in a bluish gray color during nasal examination. The character and features of the nasal mucus are helpful for the diagnosis. Thin and watery secretions are generally associated with allergenic rhinitis and thick purulent secretions are generally associated with sinusitis. In allergic rhinitis, mucosa secretion being

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always thick, purulent, or multicolored is not diagnostic<sup>4,6-9</sup>.

We should examine it in terms of the nasal cavity, polyp, or tumor. Polyps are solid, gray bulks and generally have a stem to which they are attached, and they may not be seen. After the use of topical decongestant, the area around the polyp tightens, but the polyp does not shrink. Chronic rhinitis, granulomatous disease, cocaine addiction, septal deviation due to a surgery, or perforation can be observed during nasal septum examination. This can be rarely observed due to the excessive use of topical steroid or topical decongestant. We can observe excessive lacrimation along with palpebral conjunctival injection and swelling findings during ophthalmologic examination. Dennie-Morgen folds (wrinkles that occur below the lower eyelid) are associated with allergic rhinitis. Paving-stone degeneration at the posterior pharynx is observed frequently. This is because of the lymphoid tissue lines on the posterior pharynx. Tonsillar hypertrophy can also be observed. The presence of lymphadenopathy should be checked during neck examination. Respiratory system examination findings can be correlated with asthma. Wheezing, tachypnea, and prolonged expiratory phase are among these findings<sup>3,5-10</sup>.

Sinusitis, allergic conjunctivitis, otitis media, asthma, and nasal polyps are among the diseases that combine with allergic rhinitis<sup>1,3,8</sup>.

Besides detailed anamnesis, physical examination and laboratory tests including specific IgE, skin test and nasal provocation tests may be demanded according to the physician's decision and are among the most useful tests for diagnosis in allergic rhinitis<sup>1,4,6</sup>.

Allergic rhinitis treatment is composed of 4 main categories: avoiding allergens, pharmacological regulation, surgical treatments, and immunotherapy<sup>1-5</sup>.

Frequently observed allergen sources are pollen, house dust mites, fungus, animals, and insects. It is not always easy to avoid these allergens; however, reducing the exposure to allergens helps allergic rhinitis treatments be more successful<sup>3-6</sup>.

Pharmacotherapy is frequently used and includes the use of antihistamines, decongestants, intranasal corticosteroids, cromolyn's, anti-leukotrienes, and corticosteroids in severe cases<sup>6-10</sup>.

The surgical methods used are cryosurgery, electrocautery, laser turbinectomy, partial or total turbinectomy, radiofrequency, and vidian neurectomy. These methods are interventions aimed at the effectiveness of pharmacotherapy and not the source of the disease. The main goal is to make structural changes to the nose to correct the air flow<sup>1,4,7-9</sup>.

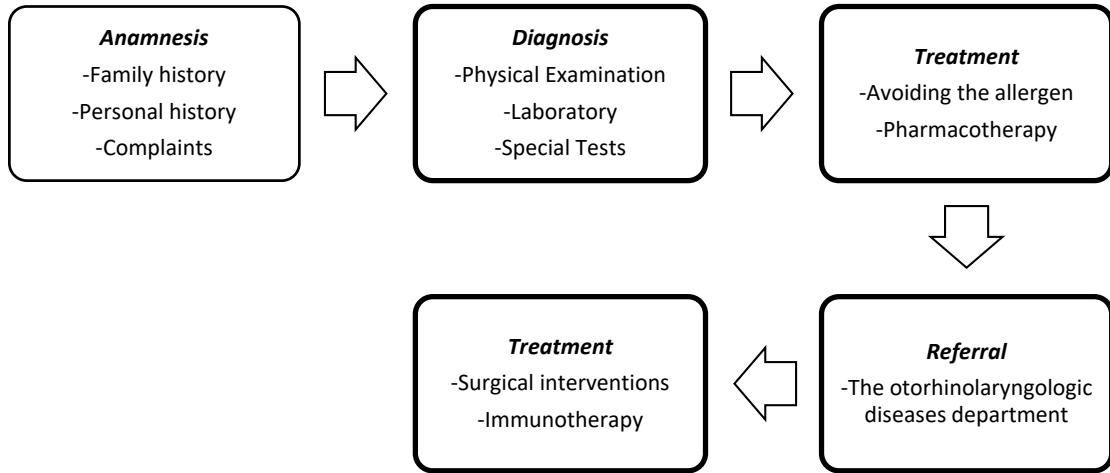
The aim of immunotherapy is desensitization. In this way, the number of mediators released by the combination of IgE antibodies on mast cells and allergen is reduced<sup>6-9</sup>.

New approaches are being introduced in the follow-up of allergic rhinitis, and multidisciplinary telemedicine approach have been included in the guidelines. It is observed that physicians and patients being in interaction with each other on social media leads to improvement in patients' attitudes and behaviors about health<sup>7-10</sup>.

In addition to its ease of access and low cost, primary healthcare is the healthcare step that patients should use first. This is the healthcare step where the biopsychosocial approach, also defined as the holistic approach, is used, and all protective healthcare services are provided to society.

Allergic rhinitis can also be diagnosed in primary healthcare services and recovery can be achieved by initiating the treatment and relieving the patient's complaints. The presence of acute/chronic disease and the use of medication are also evaluated.

Approaches toward reducing environmental exposure or avoiding allergens comprise the first and most important step of treatment recommendations. Recommending patients use vacuum cleaners that include HEPA (high-efficiency particulate air) filters should be among the recommendations to avoid allergens. Afterward, an appropriate pharmacotherapy option should be selected based on the severity, duration, and location of the symptoms. Generally, antihistamines and nasal decongestants are sufficient for patients. The most preferred antihistamine is cetirizine, and nasal decongestant is oxymetazoline hydrochloride. In cases where recovery is not achieved or takes too long with recommendations and pharmacotherapy, the patient needs to be directed to the otorhinolaryngologic diseases department (Figure 1).

**Figure 1.** Steps of allergic rhinitis approach

**Yazar Katkıları:** Çalışma konsepti/Tasarım: IF; Veri toplama: IF; Veri analizi ve yorumlama: IF; Yazı taslağı: IF; İçerigin eleştirel incelenmesi: IF; Son onay ve sorumluluk: IF; Teknik ve malzeme desteği: IF; Süpervizyon: IF; Fon sağlama (mevcut ise): yok.

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