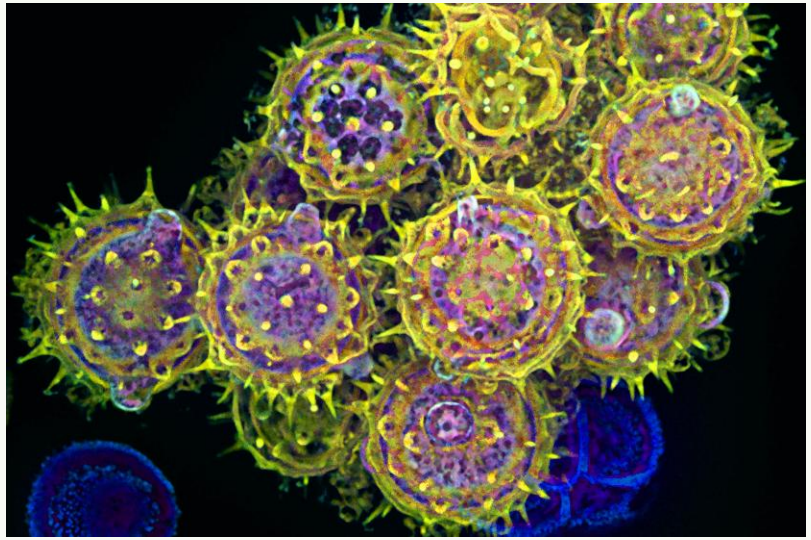
Seasonal Allergic Rhinitis

Clinical assessment and community management



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Overview

Rhinitis is simply inflammation of the nasal lining. It is characterized by rhinorrhea, nasal congestion, sneezing, and itching (1).

Seasonal allergic rhinitis (SAR) and/or conjunctivitis, more commonly known as hay fever, are allergic reactions in the nasal mucosa and the conjunctiva of the eye associated with the presence of pollens in the atmosphere.

Hay fever occurs at certain times of year. The most common causes are:
Tree pollens in spring.
Grass pollen in summer (2).

Patient assessment with allergic rhinitis: Symptoms

1-Classical symptoms of rhinitis are nasal itch, sneezing, watery rhinorrhea and nasal congestion. In addition, symptoms of cough, and allergic conjunctivitis can be seen. (1).

2-The nasal discharge is often thin, watery, and clear, but it may be change to colored and purulent one which may indicate secondary infection. However, the treatment is not altered and antibiotic are usually not needed (3).

3-Symptoms of allergic rhinitis may be confused with that of common cold; the two conditions may be distinguished by the following points (Table 2-3) (2):

Table 2-3: Differential diagnosis of allergic rhinitis and the common cold (2)

Common cold	Allergic rhinitis
Normally no eye symptoms	Eye symptoms common
Symptoms last for about 4-7 days	Symptoms continue for as long as the patient is exposed to the allergens, often for several weeks
Can occur at any time of the year but more usually in the winter months	Symptoms occur at the same time each year.
Highly contagious (affects other family members and may be common within the community.	Only affect isolated individuals.

Associated symptoms

1-Earache and facial pain: as with cold and flu, allergic rhinitis can be complicated by secondary bacterial infections in middle ear (otitis media) or the sinuses (sinusitis) (3).

2-When associated symptoms such as wheezing, tightness of the chest, shortness of breath (SOB) is present, same-day referral is advised (3).

3-Eye symptoms: the eyes may be itchy and also watery (allergic conjunctivitis), occasionally, this may be complicated by a secondary bacterial infection in which the discharge change from clear watery to sticky colored (purulent) (3)

Seasonal variation

Repetitive and predictable seasonal symptoms characterize SAR (4).

Triggers

Classically symptoms of hay fever are more severe in the morning and evening this is because pollen rises during the day after being released in the morning and then settled at night.

Hay fever symptoms worsen also on windy days. While symptoms may be reduced after rain (3).

Family history

If a first degree relative suffers from atopy, then hay fever is the most likely cause of rhinitis (1).

(Atopy: a form of hypersensitivity characterized by a familial tendency) (1).

When to refer (1, 3)

- Wheezing and shortness of breath
- Tightness of chest
- Failed medication
- Medicine-induced rhinitis
- Unilateral discharge in children (possible trapped foreign body) or older adult (possible tumour).

Medication

If symptoms are not adequately controlled with OTC preparations, referral is required (3).

Medication of other condition

-To avoid drug-drug interactions between the recommended OTC and this drug (3).

-Systemic medicines associated with congestion or rhinorrhea include alpha-blockers (common), ACE inhibitors (uncommon) and beta-blockers (rare) (1).

-Rhinitis medicamentosa is caused by prolonged use of topical decongestants (>5–7 days) (1).

Treatment timescale (3)

Improvement in symptoms should occur within a few days.

If no improvement is noted after 7 days, consider referral to the physician.

Management: Nonpharmacological advices for SAR (2)

1-Stay indoors and keep all windows closed.

2-Avoid going out, particularly in the early evening and mid-morning.

3-Wear close-fitting sunglasses when outside, and a mask if symptoms are really severe.

4-In the car, keep windows closed, especially on motorways. Keep the air conditioning system on, if there is one.

Pharmacological therapy

Pharmacists now possess a wide range of options to treat SAR. Medications used can be divided into two categories (1):

Topical: corticosteroids, antihistamines, mast cell stabilizers, and decongestants.

Systemic: Antihistamine and decongestants.

Topical therapy

A-Steroid nasal sprays: beclometasone, budesonide, fluticasone, mometasone and triamcinolone:

1-A steroid nasal spray is the treatment of choice for moderate to severe nasal symptoms (3) and superior to oral antihistamine (5).

2-They can be used in patients aged over 18 years for up to 3 months (3).

3-Ideally treatment should be start at least 2 weeks before symptoms are expected (2).

Topical therapy

4-Regular use is essential for full benefit (3) and it should be continued throughout the hay fever season and repeated each year (2). If symptoms are already present, the patient needs to know that it takes several days before full effect is reached (3).

5-Side effects: are (nosebleed, dryness and irritation of nose and throat) (3), but these are mild and transient (5).

6-These are suspensions, and the bottle should be shaken before use (1).

Note: patient sometimes alarmed by the term (steroid); therefore, the pharmacist needs to take account of these concerns (3).

7-They should not be recommended for anyone with glaucoma (1, 3). Manufacturers recommend that they are not used during pregnancy and breastfeeding, but safety data have shown them to be safe (1).

Mast cell stabilizers (sodium cromoglicate)

1-Sodium cromoglicate is available OTC as nasal drops or sprays and as eye drops. Cromoglicate can be effective as a prophylactic if used correctly. It should be started at least 1 week before the hay fever season is likely to begin and then used continuously (3).

2-There seem to be no significant side effects, although nasal irritation may occasionally occur (3).

3-Cromoglicate eye drops are usually highly effective in the treatment of eye symptoms that are not controlled by antihistamines and work very quickly (within an hour). However, cromoglicate should be used continuously to obtain full benefit. The eye drops should be used four times a day (3).

Topical decongestants: see common cold lecture.

Topical antihistamine

1-Topical antihistamines (e.g., azelastine) are faster acting than oral antihistamines and therefore, useful for controlling breakthrough symptoms in allergic rhinitis. They are less effective than topical nasal corticosteroids.

Treatment should begin 2 to 3 weeks before the season commences and/or exposure to the allergen (6).

2-The dose: 1 spray twice daily, to be administered into each nostril (6).

Topical ocular preparations

1-Most eye symptoms will be controlled by oral antihistamines, however if symptoms are persistent or particularly troublesome, topical ocular preparations are effective (5):

2-Ocular preparations include sodium cromoglicate and decongestants-antihistamine (naphazoline-antazoline).

Systemic (oral) therapy

Systemic (oral) decongestants:

like pseudoephedrine, phenylephrine and ephedrine which constrict the dilated blood vessels of the nose (3).

Antihistamines

1-Many pharmacists would consider these drugs to be the first-line treatment for mild to moderate and intermittent symptoms of allergic rhinitis. They are effective in reducing sneezing and rhinorrhea, less so in reducing nasal congestion (3).

Note (important): The maximum effect of antihistamines is achieved if they are block histamine release before it occurs. For maximum effectiveness, therefore, antihistamines should be taken when symptoms are expected rather than after they have started (5).

2-Breakthrough symptoms with one-a-day antihistamines: patients who suffer breakthrough symptoms using a once daily preparation (loratadine, cetirizine) may benefit from changing to acrivastine, as three-times-a-day dosing may confer better symptom control (1).

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