

APRIL 2013 • PHYSICIANS

Rhinitis

Allergic or Nonallergic?

Differentiation is important

Spring is here again. The birds are singing and it's warming up. Your patients might start complaining more about allergy symptoms. But it's important to remember that these symptoms aren't always caused by allergic rhinitis. Nonallergic rhinitis is also common. And optimal treatment depends on differentiating the two.

Treatment outcome may depend on pinpointing all the allergic *and* nonallergic triggers. This is because the more concurrent triggers the patient is exposed to, the worse the symptoms are likely to be. Helping your patient to identify and avoid his/her triggers can go a long way toward helping your patient feel better.

Symptoms don't help much in differentiation

Allergic and nonallergic rhinitis have basically the same symptoms. So they are often hard to tell apart based on symptoms alone.

	Allergic Rhinitis	Nonallergic Rhinitis
Chronic sneezing	X	X
Runny nose	X	X
Stuffy nose	X	X
Postnasal drip	X	X
Itchy eyes, nose, or throat	X	

Evaluating risk factors

Evaluating patients to see if they have certain risk factors might help a little in differentiating allergic and nonallergic rhinitis. For example, nonallergic rhinitis is associated with:

- Age of onset >20 years
- Female gender (hormonal changes that occur during menstruation and pregnancy)
- Occupational exposure to fumes from chemicals, compost, jet fuel
- Exposure to smog and secondhand smoke
- Other disorders such as hypothyroidism, acid reflux disease, cystic fibrosis, and lupus



Nonallergic rhinitis triggers

- Airborne odors or irritants such as dust, smog, perfume, hair spray, cleaning solutions, secondhand smoke
- Changes in temperature or humidity, cold air
- Emotional or physical stress
- Hormonal changes, especially in women
- Hot or spicy foods, alcoholic drinks
- Medicines such as aspirin, ibuprofen, ACE inhibitors, beta-blockers, sedatives, antidepressants, birth control pills, and erectile dysfunction drugs
- Overuse of decongestant nasal sprays
- Viral infection

Allergic rhinitis triggers

- Animal dander
- Chemicals in shampoos, detergents, cosmetics
- Cockroach droppings
- Dust mite droppings
- Foods
- Insect stings (eg, bees, wasps, fire ants)
- Medications such as penicillin
- Molds
- Nickel
- Poisonous plants (eg, poison ivy, oak, or sumac)
- Pollen

On the other hand, allergic rhinitis is associated with:

- A positive family history
- Age of onset <20 years
- Environmental exposure to common allergens

Importance of a thorough history

Gathering information from the patient can be very helpful in separating allergic and nonallergic rhinitis. Be sure to find out when the patient first noticed symptoms, how long they lasted, and when they came back. Ask the patient about possible triggers such as food, medicine, a new pet, a new job, a new home, etc. Ask about the symptoms, which might point to classic hay fever vs a structural obstruction. Look for other conditions that often occur along with rhinitis and for possible complications.

How testing can help

Allergen-specific skin testing or IgE blood testing can help rule out allergic rhinitis or establish probable trigger(s). Blood testing is especially useful when the patient¹:

- Has a widespread skin disease
- Has a high risk of anaphylaxis from skin testing
- Is receiving medications (eg, beta-blockers, angiotensin-converting enzyme inhibitors, and some antihistamines and tricyclic antidepressants) that interfere with skin testing
- Is uncooperative due to a mental or physical impairment

Quest Diagnostics offers ImmunoCap® blood testing for over 200 allergens. Allergens can be ordered individually or in panels. The test can be used for patients 3 months of age and older, regardless of skin condition. There is no need to stop current medications before drawing a blood sample.

Additionally, nasal endoscopy or a computerized tomography (CT) scan can be used to look for a structural abnormality that might be causing the symptoms.

Additional information

1. Sheikh J, Najib U. Allergic rhinitis. Medscape website. <http://emedicine.medscape.com/article/134825-overview#showall>. Accessed February 18, 2013.

Treatment

The most important thing is to avoid the trigger(s). This is true for both allergic and nonallergic rhinitis. So, narrowing down the possibilities using the history, physical examination, and laboratory testing is crucial. When total avoidance isn't possible, other things can be used to help the patient feel better.

	Allergic Rhinitis	Nonallergic Rhinitis
Allergy shots (immunotherapy)	X	
Avoid triggers	X	X
Dehumidifier	X	
Discontinue or change medications		X
Humidifier		X
Hydrate with water or noncaffeinated drinks		X
Leukotriene inhibitor	X	
Mast cell inhibitor	X	
Nasal lavage/rinse		X
Nasal sprays		
Saline		X
Steroid	X	X
Antihistamine	X	X
Antidrip anticholinergic	X	X
Decongestant	X	X
Ipratropium bromide	X	X
Oral antihistamine	X	
Oral decongestant	X	X
Surgery		X

References

1. Bernstein IL, Li JT, Bernstein DI, et al. Allergy diagnostic testing: an updated practice parameter. *Ann Allergy Asthma Immunol.* 2008;100(Suppl 3): S1-S148.