Clinical Manifestations of Allergic Disease

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Basic Course 2013
Disclosures

Sunovion- Advisory Board, Speaker
Teva- Advisory Board
Objectives

• Discuss clinical history that suggest an underlying allergic disorder

• Discuss the physical signs and stigmata of allergic disease
Diagnosis of Inhalant Allergies

Based on:

- History
- Physical Examination
- Laboratory &/or Skin Testing
Taking a History

Establish main symptoms: itchy, sneezy, runny, etc.

- Total duration
- Frequency: intermittent, persistent, acute exacerbations
- Alleviating and exacerbating factors: e.g., smoke
- Associated symptoms: e.g., sinuses, eyes, throat, snoring
- History of asthma, eczema, oral allergy syndrome, food allergy
- Allergen exposure: e.g., home, hobbies, sports, occupational
- Family history
- Medication use: type, duration, compliance, efficacy
- Impact on quality of life
Types of Rhinitis

- Seasonal allergic rhinitis
- Perennial allergic rhinitis
- Intermittent allergic rhinitis
- Persistent allergic rhinitis
- Occupational / Chemical allergic rhinitis
- Gustatory, Vasomotor rhinitis
- Rhinitis medicamentosa
- Hormonal rhinitis
- Idiopathic rhinitis
Allergic Rhinitis: Associated Diseases

- Otitis Media
- Asthma
- Rhinosinusitis
- Laryngitis, Pharyngitis
- Conjunctivitis
- Atopic Dermatitis, Urticaria
Questions for Inhalant Allergy

Most bothersome symptoms?

- Sneeze: 64%
- Runny nose: 64%
- Itching nose: 49%
- Post-nasal drip: 63%
- Watery eyes: 64%
- Itchy/Red eyes: 43%
- Blockage nose: 76%
- Sinus pressure: 73%
- Snoring: 27%
- Itchy palate: 28%
- Sore throat: 31%
- Headache: 54%
- Cough: 30%
- Nocturnal waking: 27%
- Wheeze: 19%
- No symptom: 5%
Questions for Inhalant Allergy

• Do symptoms improve or resolve in different locations or times of year? (e.g., weekday / weekend, vacations, travel, Spring or Fall seasons)

• Duration & frequency

• Triggers
### Allergic Rhinitis: Specific Triggers

- **Pets**: cats, dogs, rabbits, hamsters, horses, etc.
- **Home or work / school**: moisture problem, poorly maintained A/C or indoor air turnover, cockroach exposure, carpets
- **Symptoms worse in specific area**: garden, hobby, sport, smoky bars
- **Non-allergenic irritants**: fragrances, smoke, chemicals, change in temp/humidity
Aeroallergens

Seasonal Allergic Rhinitis: Outdoor
- Trees
- Grasses
- Weeds

Perennial Allergic Rhinitis: Indoor
- Mites
- Cockroaches
- Molds
- Animal Danders

Other Diseases to Consider in Differential for Rhinitis

- **Mechanical Factors**
  - Deviated septum
  - Adenoidal hypertrophy
  - Foreign body
  - Choanal atresia

- **Tumor**

- **Infectious**
  - Viral, Bacterial, Fungal

- **Granulomatous dz**
  - Wegener’s, Sarcoid
  - Infectious

- **Mucociliary Defect**

- **Immune Deficiency**

- **CSF Rhinorrhea**

- **GERD**
Past Medical History

- Asthma
- Eczema
- Colic / formula intolerance
- Recurrent or chronic OM &/or RS
- Anaphylactic reaction (food or drug)

- Surgery
  - T & A
  - PE Tubes
  - “Sinus”

- OTC or Rx medications with anti-allergy, “cold” or decongestant effects
Family History

• Allergic Rhinitis
• Asthma, ASA sensitivity
• Eczema
• Angioedema, Urticaria
• Food Intolerance (colic, anaphylactic, etc.)
Social History

• Living accommodations
  – How old & in what condition is the home? (mold, cockroach)
  – Basement?
  – Recent remodeling (carpet, insulation)?
  – Air conditioning (central forced air or radiator, window units, humidifier, filtration used & replacement intervals)?
  – Indoor plants?
Social History

• Tobacco smoke (? primary or second hand)
• Alcohol use (? congestion with beer or wine)
• Exposure to young children or pets
• Occupation (veterinarian, landscape professional, mill worker, etc.)
• Recent medication or diet change
• Recent job or environmental change
Useful to administer prior to seeing patient to enhance efficient line of questioning
Physical Signs of Allergy

- Nose
- Throat
- Mouth
- Ears
- Eyes
- Skin
- Bronchial Tree
- GI Tract
Allergic Signs & Symptoms:

Eye

- Conjunctiva & lids
- Symptoms of pruritis, burning, tearing
- Acute Signs = scleral injection / chemosis, lid edema / erythema, tearing, photophobia
- Chronic Signs = allergic shiners &/or lashes, Dennie’s lines, thick mucous, cobblestone mucosa, thick / lichenified lids, keratopathy
Signs of Allergic Conjunctivitis

Hyperemia

Chemosis

Tearing
Allergic Shiners

Courtesy of BJ Ferguson

The American Academy of Otolaryngic Allergy

Courtesy of Upjohn, Inc.
Dennie’s Lines
Allergic Signs & Symptoms: Nose

- Enlarged inferior & middle turbinates
- Pale, boggy, bluish mucosa
- Watery rhinorrhea
- Nasal / palatal pruritis
- Transverse nasal crease
- Facial grimacing
Allergic Signs & Symptoms: Nose

Sneezing is classic for **SAR**, as is watery rhinorrhea & pruritis

Obstruction & PND is more characteristic of **PAR**
Facial Grimacing from Nasal Pruritis

Courtesy of BJ Fergeson

The American Academy of Otolaryngic Allergy
“Allergic Salute”
Supratip nasal crease from “Allergic Salute”
Edematous ("Boggy"), Pale or Bluish, & "Wet" Turbinate

Courtesy of BJ Ferguson
Hypertrophy of Waldeyer’s Ring
Allergic Signs & Symptoms: External Ear

- Contact dermatitis: earring, hearing aid mold
- Chronic eczematoid dermatitis
Contact Sensitivity to Agent in Ear Drops:

- Neomycin
- Steroid
- Thimerosal
- Propylene Glycol
- Benzalkonium Chloride
- Benzocaine
Chronic ET dysfunction with difficulty equalizing, pressure / fullness sensation, vague unsteadiness, TM retraction, etc.

OME, COME
Allergic Signs & Symptoms: Oral Cavity / Pharynx

- Post nasal drip
- Cobblestoning of pharyngeal wall
- Hypertrophy of lateral pharyngeal bands
- Mouth breathing
Note: Mouthbreathing, Retrognathia, Arched Palate
Posterior Pharyngeal Cobblestoning

Courtesy of BJ Ferguson
Allergies and Voice

- Inhalant allergies can affect voice by:
  - Excess secretions (PND, tracheal & locally generated)
  - Direct local reaction (vocal fold edema, as with Reinke’s)
  - Laryngeal drying from mouth breathing
  - Decreased pulmonary function (asthma)
Allergies and Voice

- Physical findings
  - Mild vocal fold edema &/or erythema
  - Slightly reddened arytenoids
  - Accumulation of secretions
  - Viscous mucus bridging TVC
Allergies and Laryngeal Changes

A

B

Allergies and Laryngeal Changes
Allergic Signs & Symptoms: Skin

- **Dry, scaly skin**, ranging from dandruff to lichenification

- **Pruritis** is characteristic (signs of scratching)

  Varies from eczema (esp. antecubital & popliteal fossa), contact dermatitis & urticaria to angioedema
Allergic Signs & Symptoms: Chest

- **Asthma** = most common manifestation

- “Cough variant” asthma is mild form common in children: chronic, dry cough
  - URI
  - Exercise
  - Allergen exposure
Allergic Signs & Symptoms: Summary

• Allergy is very commonly associated with other diseases

• Clinical diagnosis can be made by a thorough history

• Physical signs of allergic disease may provide further diagnostic information