

A vibrant blue sky filled with soft, white, fluffy clouds. In the upper right corner, a bright sun shines with a starburst effect. White cherry blossoms with green leaves are visible in the top left and bottom right corners. The text "IN THE NAME OF GOD" is centered in a bold, dark blue font.

IN THE NAME OF GOD



دانشگاه علوم پزشکی بقیه الله
مرکز تخصصیات فن آوری های نوین سوانی



دانشگاه علوم پزشکی بقیه الله

New Approaches to Rhinitis

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Definition

- Nasal mucosa and upper respiratory tract disease

Types of Rhinitis

- Allergic rhinitis ➔ 30%
- Non Allergic rhinitis ➔ 70%
- Non Allergic rhinitis + Allergic rhinitis ➔ ?

Prevalence's of Rhinitis

- Normal population ➔ 30%
- Childhood population ➔ 30 %

Children with allergic rhinitis are 3 times more likely to have asthma



Allergic Rhinitis

Major Symptoms

- ▶ Sneezing
- ▶ Nasal pruritus
- ▶ Rhinorrhea
- ▶ Nasal congestion
- ▶ Hyposmia or Anosmia

Other Symptoms

- ▶ Sinusitis
- ▶ Otitis media
- ▶ Adenoid hypertrophy
- ▶ Eczema
- ▶ Conjunctivitis
- ▶ Chronic fatigue
- ▶ Sleep disorder
- ▶ Throat pruritus
- ▶ lung symptoms(Asthma)
- ▶ Family history



Non Allergic Rhinitis

- ▶ **Definition:** A large number of symptoms that cannot be explained by a single pathology
- ▶ **Diagnosis:** Rejecting allergic rhinitis by taking the history of the disease and checking the symptoms or the normality of IGE (blood or tissue specific)



Non Allergic Rhinitis classification

- ▶ Idiopathic
- ▶ Non Allergic with increasing Eosinophilia
- ▶ Drug Rhinitis
- ▶ Hormonal
- ▶ Senile
- ▶ Systemic
- ▶ Gustatory
- ▶ Atrophic
- ▶ Mechanical

Idiopathic Non Allergic Rhinitis

Prevalence

- ▶ 70% of Non Allergic rhinitis
- ▶ Mostly in adults
- ▶ In women, it is 2 to 3 times more than in men

Symptom classification

- ▶ Nasal
- ▶ Ocular
- ▶ Oral
- ▶ Sided symptoms

Symptom

- ▶ Rhinorrhea at morning
- ▶ nasal obstruction
- ▶ post nasal discharge
- ▶ Clearing the throat
- ▶ Cough
- ▶ Hyposmia



Idiopathic Non Allergic Rhinitis

- Diagnosis based on history and symptoms
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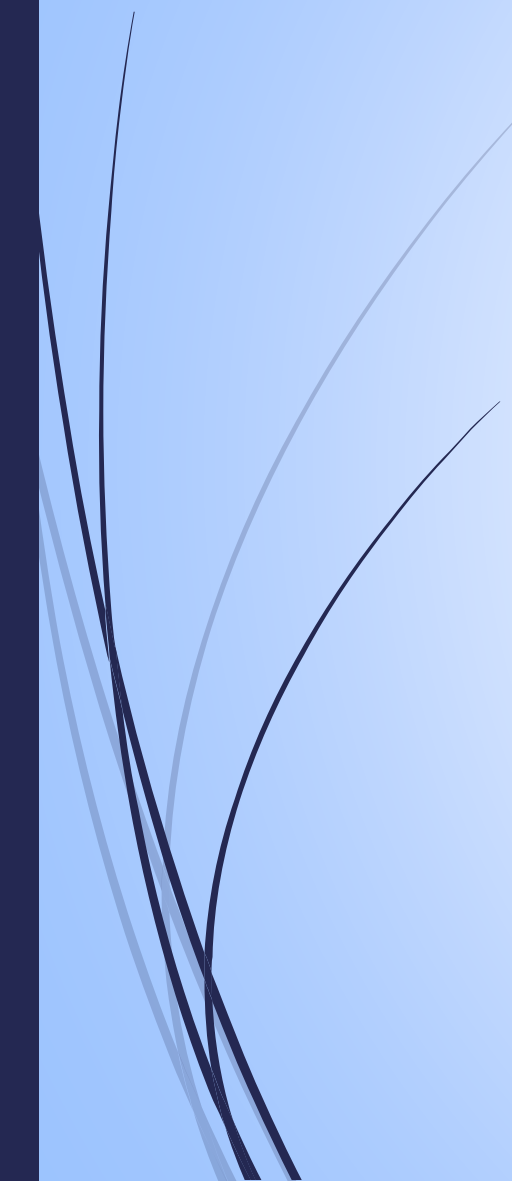
Idiopathic Non Allergic Rhinitis

► Severity → mild / severe

Mild	Severe
Normal sleep	Abnormal sleep
Normal Activity	Impairment daily
Normal work/ sport	Impairment work/ sport



Specific characteristics- Irritants

- ▶ Air(temperature, climate, humidity, air pressure)
 - ▶ Strong odor (perfume , Spray)
 - ▶ Cigarette
 - ▶ Air pollution
 - ▶ Physical activity
 - ▶ Hormonal change
 - ▶ Alcohol
- 

Pathophysiology

Rhinopathy or vasomotor rhinitis

- ▶ ↓ Sympathetic activity and ↑ parasympathetic activity
- ▶ Peptidergic system
- ▶ ↑ Blood volume
- ▶ ↑ permeability of the epithelium without inflammation

Non Allergic Rhinitis with increasing Eosinophilia

- ▶ Symptoms similar to Allergic Rhinitis patients
(Rhinorrhea- sneezing- nasal pruritus- hyper reactive air way- hyposmia)
- ▶ Diagnosis: ↑ Eosinophil's on Nasal mucosa ; 10-20 %
- ▶ Definitive diagnosis ; 25%



Drug C

- ▶ Local inflammation
- ▶ Neurogenic (Decreased sympathetic activity or mucosal vasodilation)
- ▶ Idiopathic
- ▶ Aspirin - NSAID
- ▶ ↑ Leukotriene (Asthma+ mucosal inflammation) and ↓ PG2 (Anti-inflammatory)

Hormonal Rhinitis

- 1- Pregnancy
2. Hypothyroidism
3. Puberty
4. Menstrual
5. Premenopausal

Symptoms

- Rhinorrhea
- Nasal obstruction

Pathogenesis

- Vasodilation
- Smooth muscle relaxation
- ↑nasal vasculature



Senile Rhinitis

Pathology

- ▶ Blood supply ↓
- ▶ ↓ Humidity → thick mucus
- ▶ Drug consumption
- ▶ Imbalance of sympathetic and para sympathetic
- ▶ Loss of nasal cartilage

Occupational Rhinitis

- ▶ Low molecular → <10 mic/ in organic (air pollution)
- ▶ High molecular → >10 mic/ in organic (plant, animal)

Symptoms

- ▶ Epistaxis
- ▶ Nasal obstruction
- ▶ Hyposmia

Physical exam

- ▶ boggy turbinates
- ▶ hyposmia

Planning

- Mild ➡ oral anti histamine
- Moderate to severe ➡ INCS
- Anti histamine + INCS
- Evaluation 2 weeks later

- Partial response ➡ anti Histamine+decongestant
- Cut ➡ anti histamine+ INCS
- Residual nasal congestion ➡ intranasal antihistamine
- Residual rhinorrhea ➡ ipratropium bromide
- immunotherapy



*Thank you
For your
Attention*

