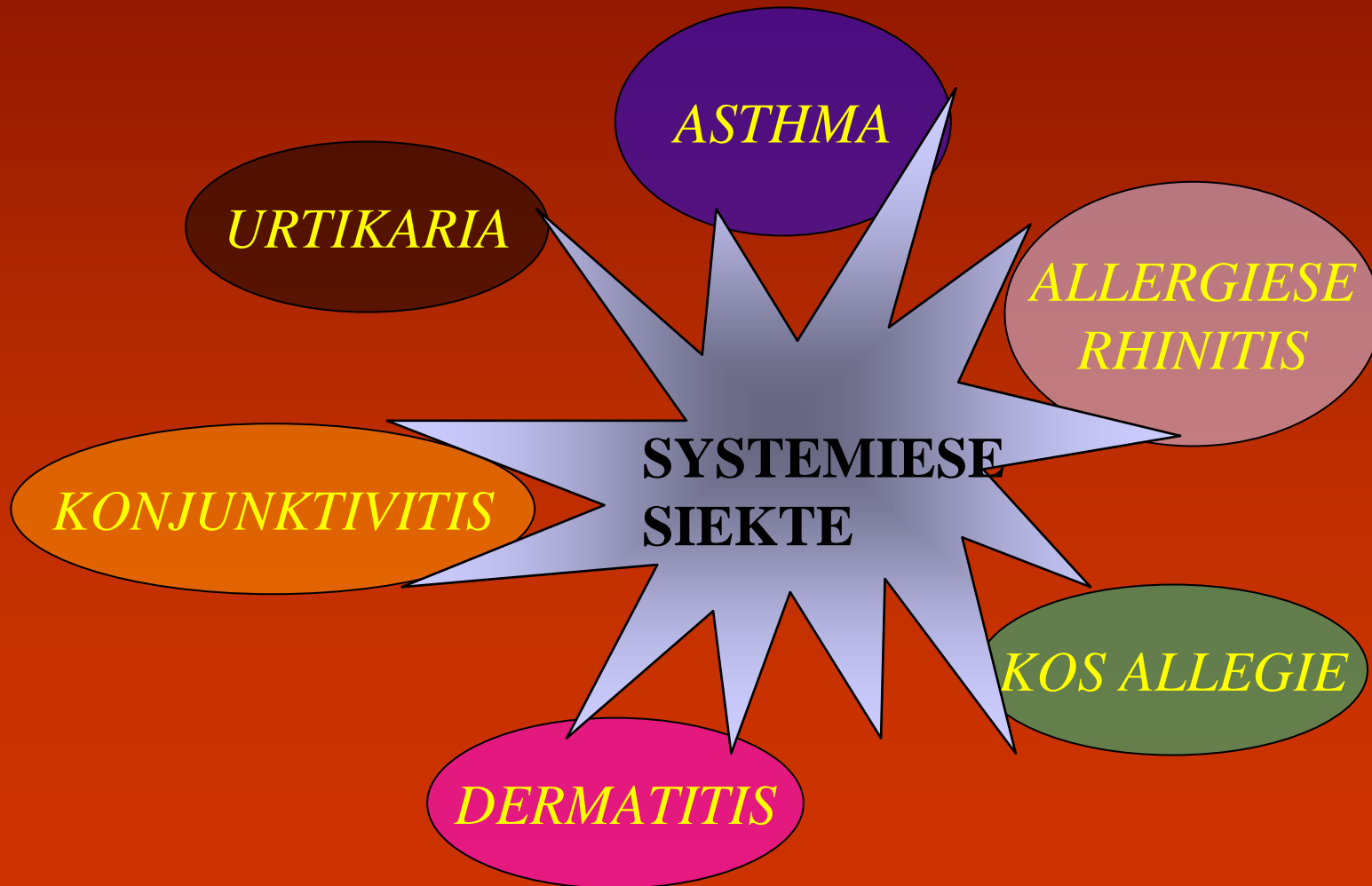


ALLERGIESE RHINITIS EN
CO-MORBIDITEIT

DR BEN VERMAAK
DURBANVILLE

SYSTEMIESE SIEKTE



LEWENSKWALITEIT

Loss of sleep (Simons, 1996)

Daytime fatigue (Hudgel, 1994)

Impaired concentration and learning (Marshall, 1993)

Decreased productivity (Juniper, 1991)

Reduced quality of life (Juniper, 1991)

Increased occupational risk (Storms, 1997)

Simons FE. *Allergy Asthma Proc.* 1996;17:185-189.

Hudgel DW. *J Respir Dis.* 1994;15:203-208.

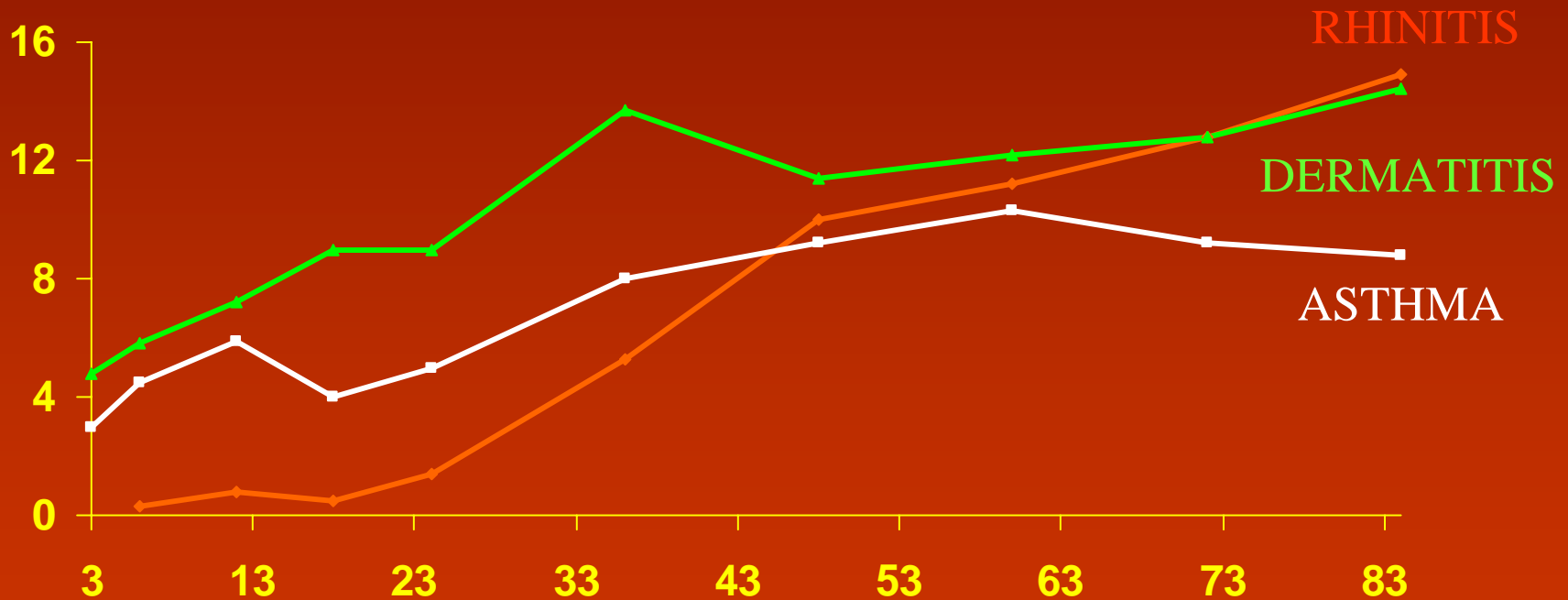
Marshall PS, Colon EA. *Ann Allergy.* 1993;71:251-258.

Vuurman EF, van Veggel LM, Uiterwijk MM, et al. *Ann Allergy.* 1993;71:121-126.

Juniper EF, Guyatt GH. *Clin Exp Allergy.* 1991;21:77-83.

Storms WW. *Allergy Asthma Proc.* 1997;18:59-61.

PROGRESSIE VAN ALLERGIE



INTRODUCTION

Ig E mediated

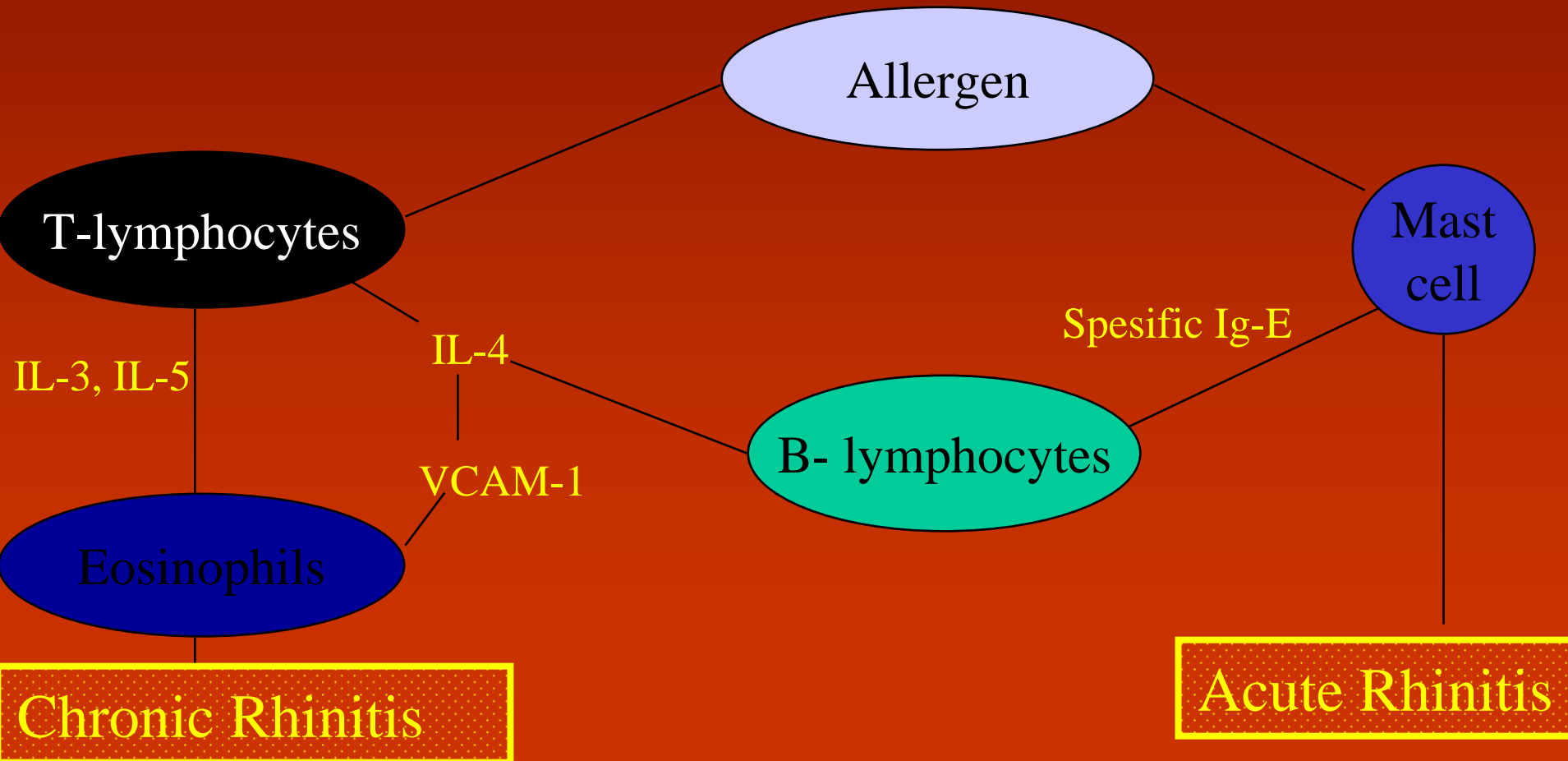
Type 1 hypersensitivity

30% of population only 2% on medication

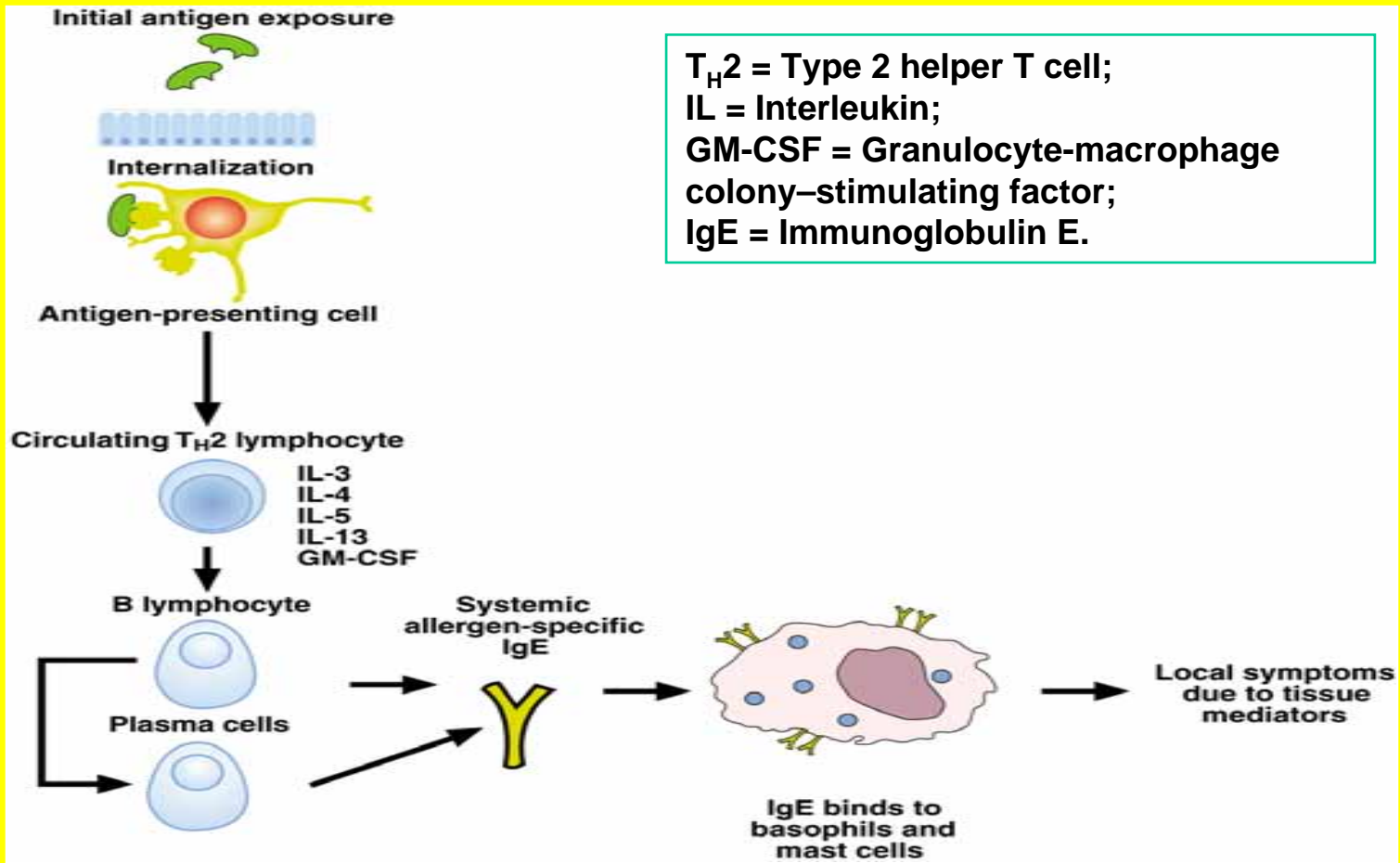
Intermittent (Seasonal)

Persistent (Perennial)

HYPOTHESIS



PATHOPHYSIOLOGY VAN ALLERGIE: TIPE I HIPERSENSITIVITEITS REAKSIE



T_H2 = Type 2 helper T cell;
IL = Interleukin;
GM-CSF = Granulocyte-macrophage colony-stimulating factor;
IgE = Immunoglobulin E.

INVESTIGATIONS

- History and clinical evaluation
- Skin prick testing
- Rast
 - Phadiatop (inhalent allergy)
 - Fx 5 (food allergy)
- Pharmacia differential atopy test
 - 96% sensitivity
 - 94% specificity
 - 95% reliability

IDEAL SYSTEMIC ANTI-ALLERGIC AND ANTI-INFLAMMATORY AGENT

- **Potent antihistamine**
- **Broad anti-allergic**
 - **Mast cell stabilization**
 - **Inhibition of release of mast cell products (e.g. prostaglandins, leukotrienes, histamine, tryptase, cytokines)**
 - **Inhibition of release of basophil products (e.g. leukotrienes, histamine, cytokines)**
 - **Inhibition of eosinophil migration and adhesion**

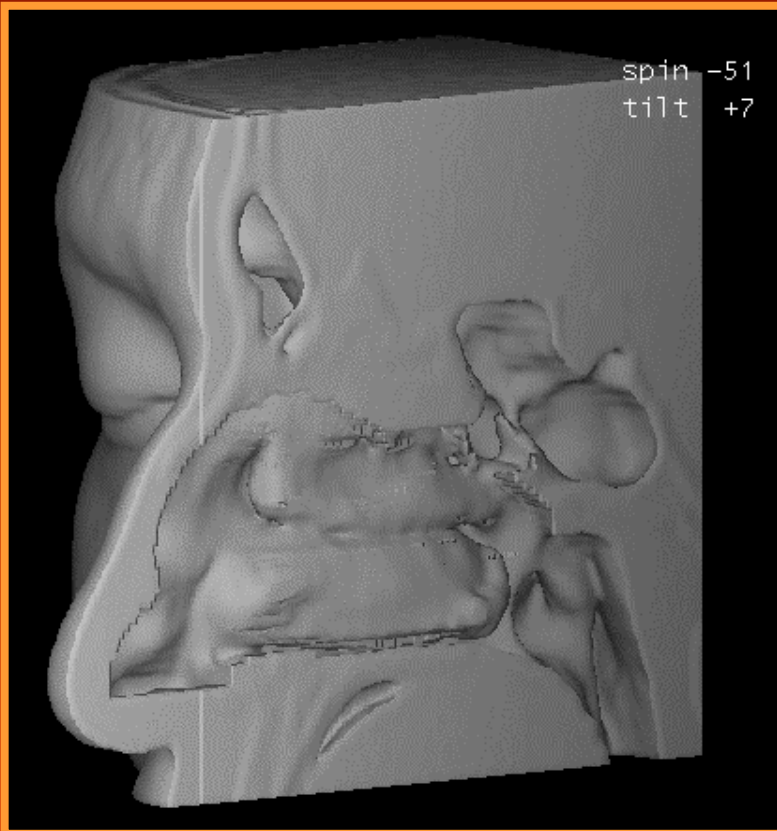
ANTI- HISTAMINES

- For sneezing, scratchy throat, itchy eyes
- Will have little effect on nasal congestion but may have drying effect
- Sedating All cause sedation, some drying, and possible urinary retention
- Non-sedating more expensive.

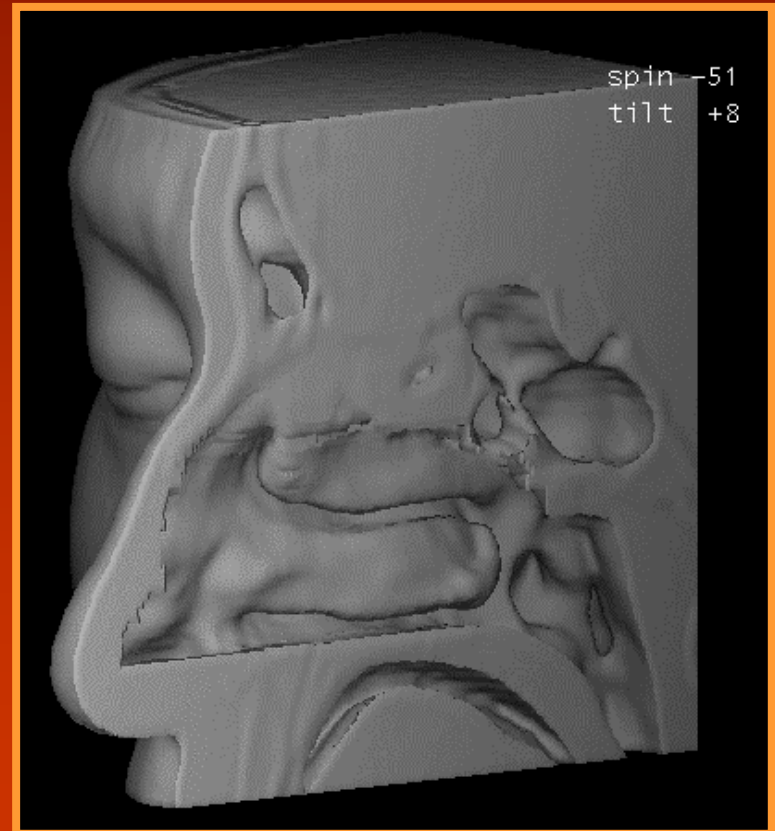
TOPICAL NASAL STEROIDS

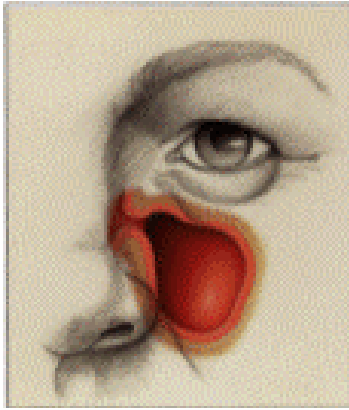
- ‘Best allergy medicine going’
- Make the nasal mucosa an inhospitable site for mast cells
- Blocks synthesis of both leukotrienes and prostaglandins
- Prevents influx of neutrophils

Pre Rx

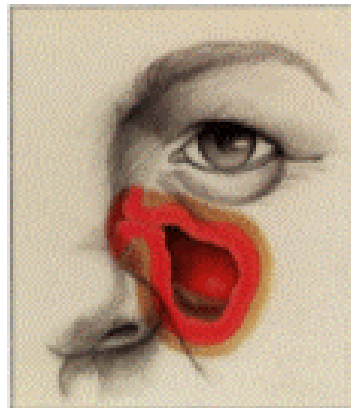


Post Rx





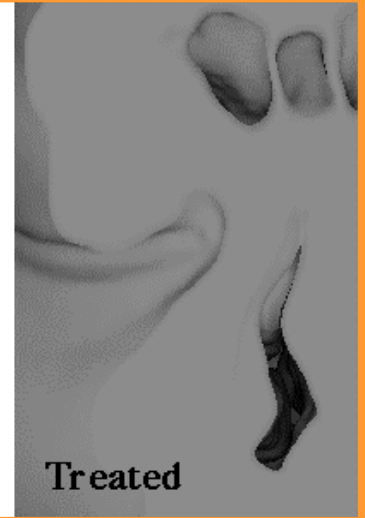
normal sinus



infected sinus



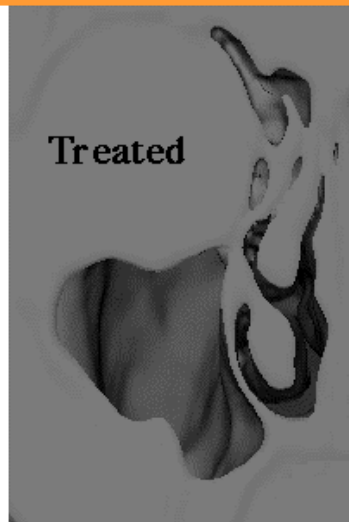
Untreated



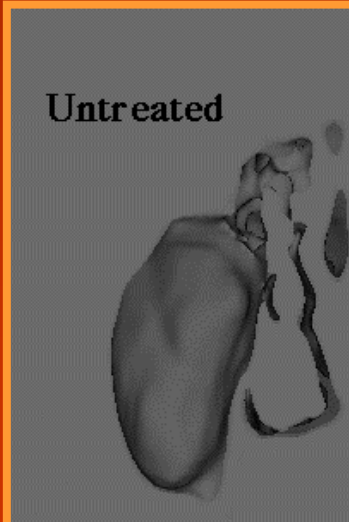
Treated



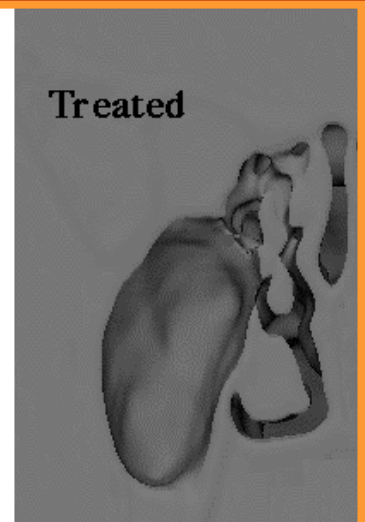
Untreated



Treated



Untreated



Treated

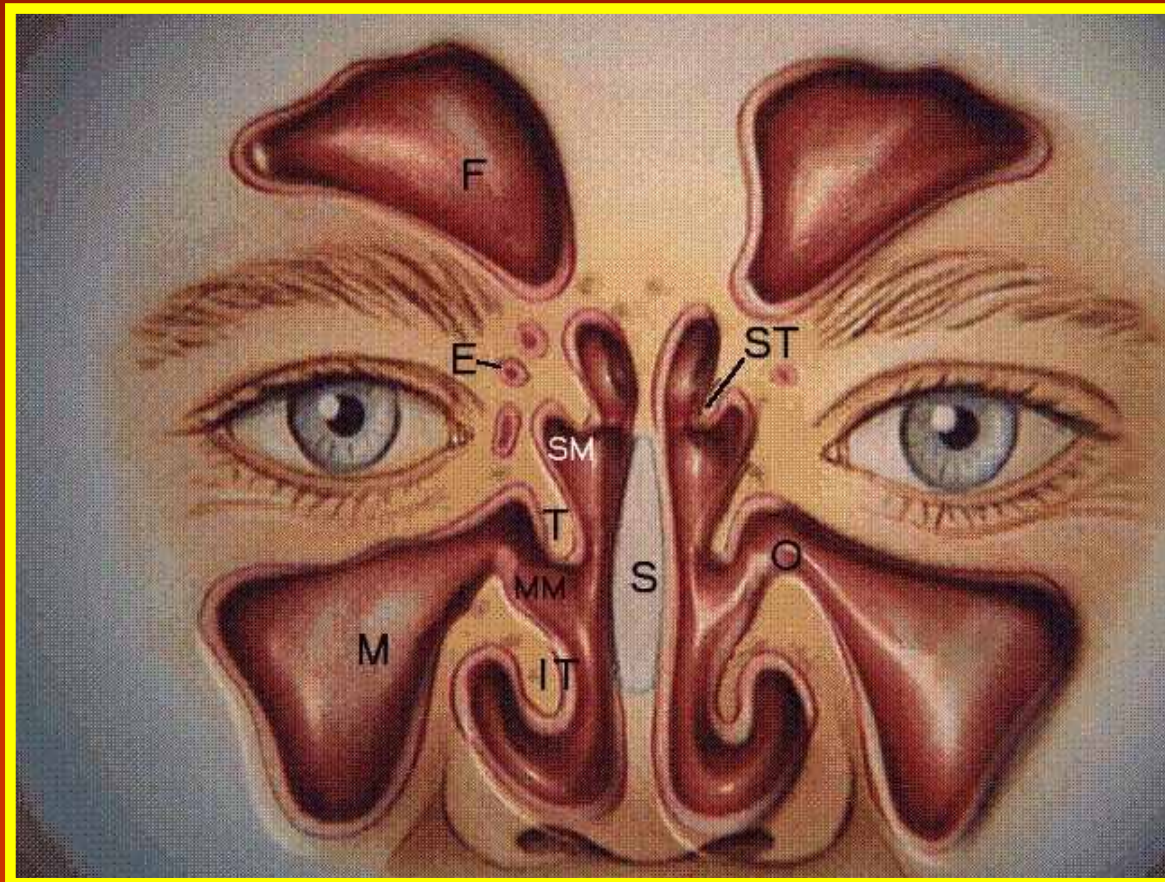
SYSTEMIC STEROIDS

- Principals for safe use:
 - Short term Rx (2 weeks)
 - Not more than every fourth month
 - Not instead but in addition to other basic rhinitis medication
 - Not for children, pregnant woman or IDDM

SYSTEMIC STEROIDS (CONTINUED)

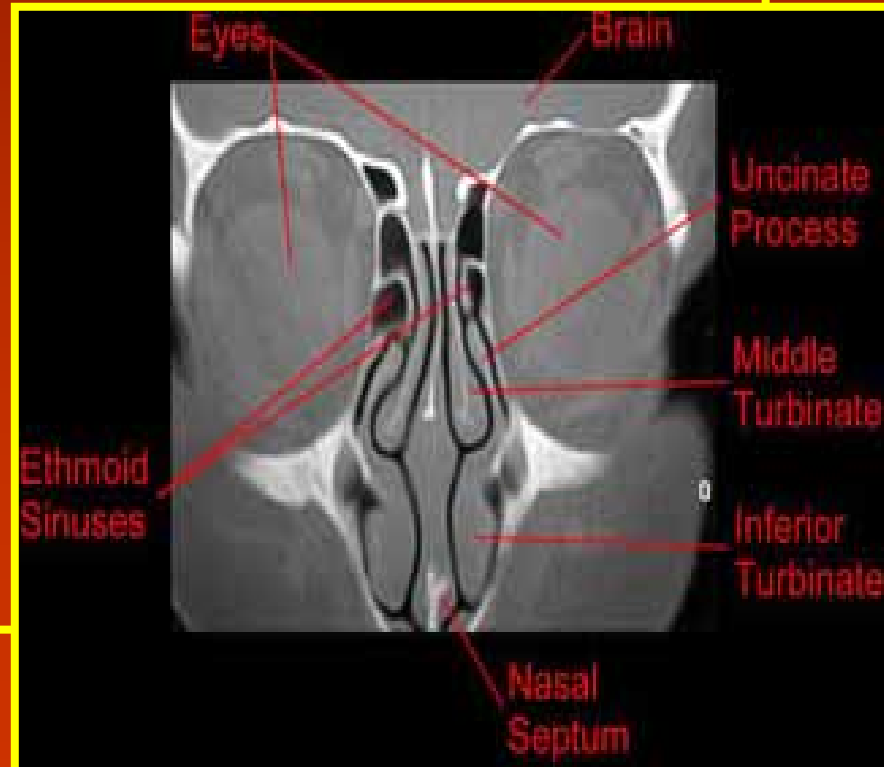
- Intermediate acting
 - Prednisone
 - Methylprednisolone (Depo-Medrol)
- Long acting
 - Dexamethasone
 - Betamethasone (Celestone soluspan)

ANATOMIE



ANATOMIE

- 2 nasale holtes en 3 turbinate
- vergroot nasale oppervlak en veroorsaak turbilente lugvloei
- middel meatus
 - *maksillêre antra*
 - *anterior ethmoidale*
 - *frontaal*



INLEIDING

- insidensie 135/1000
- impak op kwaliteit van lewe
- *“medical outcome based study”*
- dieselfde telling as pasiënte met angina & DOPS
- hoofrede vir antibiotika as voorskrif

RHINOSINUSITIS

- definiesie

“Sinusitis is not an entity in itself, but must be considered as an inflammatory disease involving the ostiomeatal complex, the nasal cavity, the nasopharynx and the upper and lower respiratory tracts”.

Josephson, 1994

HISTOLOGIE

- deel van die respiratoriese sisteem
- respiratoriese epiteel
 - *vaskulêre, gesilieerde kolomagtige epiteel*
- “Schneiderian membrane”
- bevat bekerselle en sero-musineuse kliere

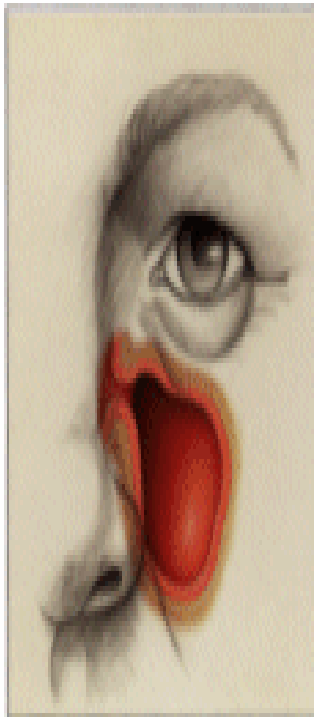
AETIOLOGIE

- viraal mees algemeenste voorloper
- sinus obstruksie
 - *allergie*
 - *anatomie*
- minder algemene oorsake
 - *poliepe*
 - *mukosale edeem*
 - swangerskap
 - bloeddruk medikasie
 - antiosteoporose middels
- siliêre disfunksie
 - *sistiese fibrose*

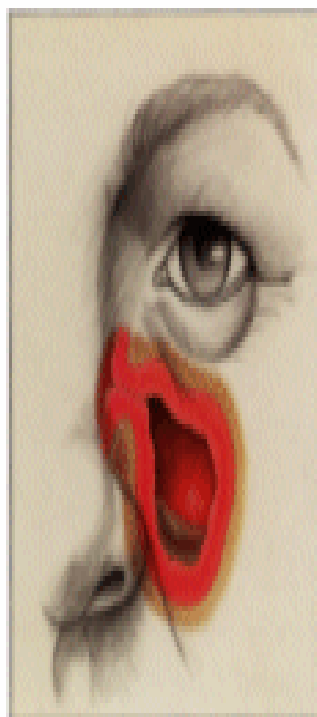
NASALE OBSTRUKSIE

- mukosaal
 - akute bakterie/virus infeksie
 - allergiese rhinitis
 - vasomotoriese rhinitis
 - poliepe
- struktureel
 - septum deviasie
 - agar nasi sel
 - concha bulosa

INFEKTIEWE RHINITIS



normal sinus



infected sinus



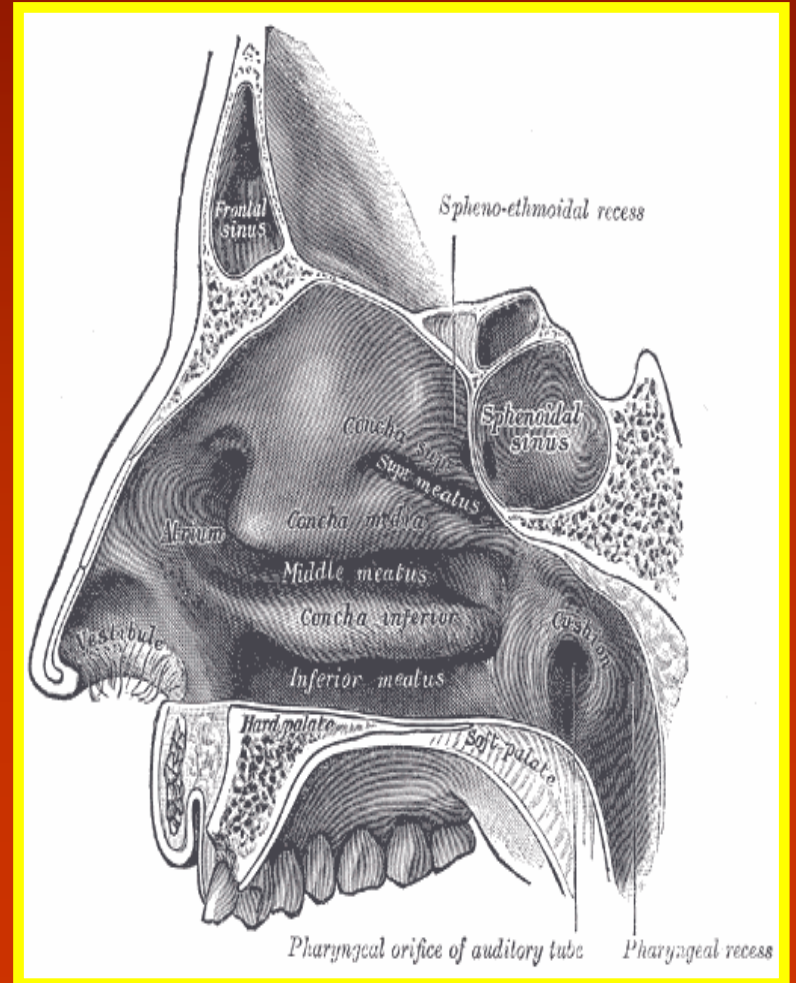
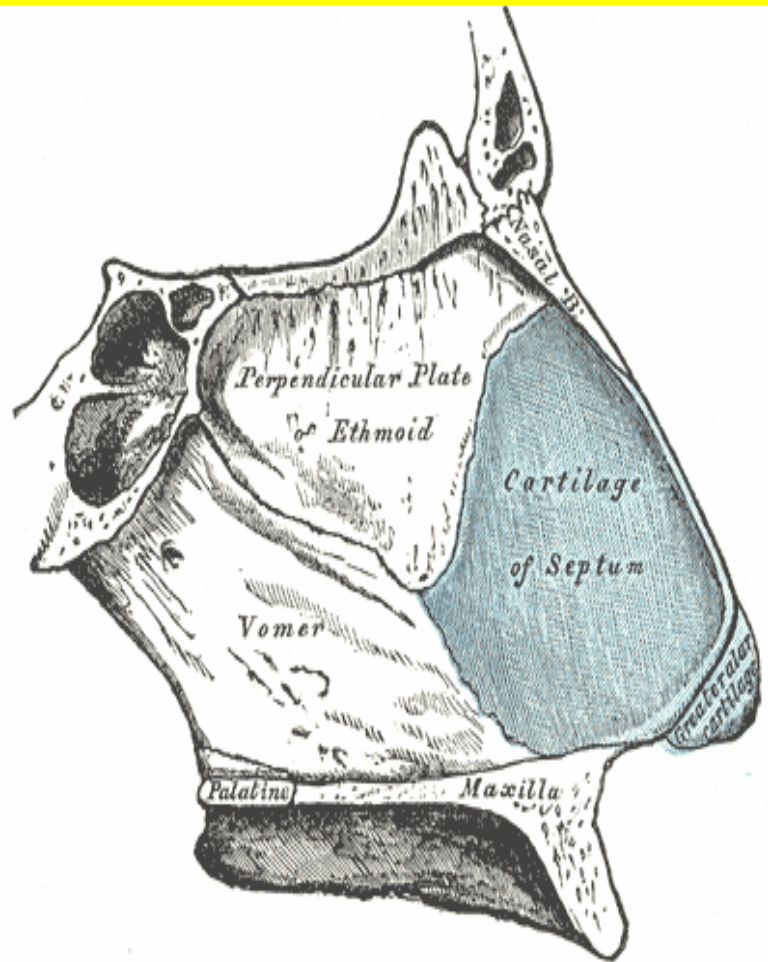
ALLERGIESE RHINITIS



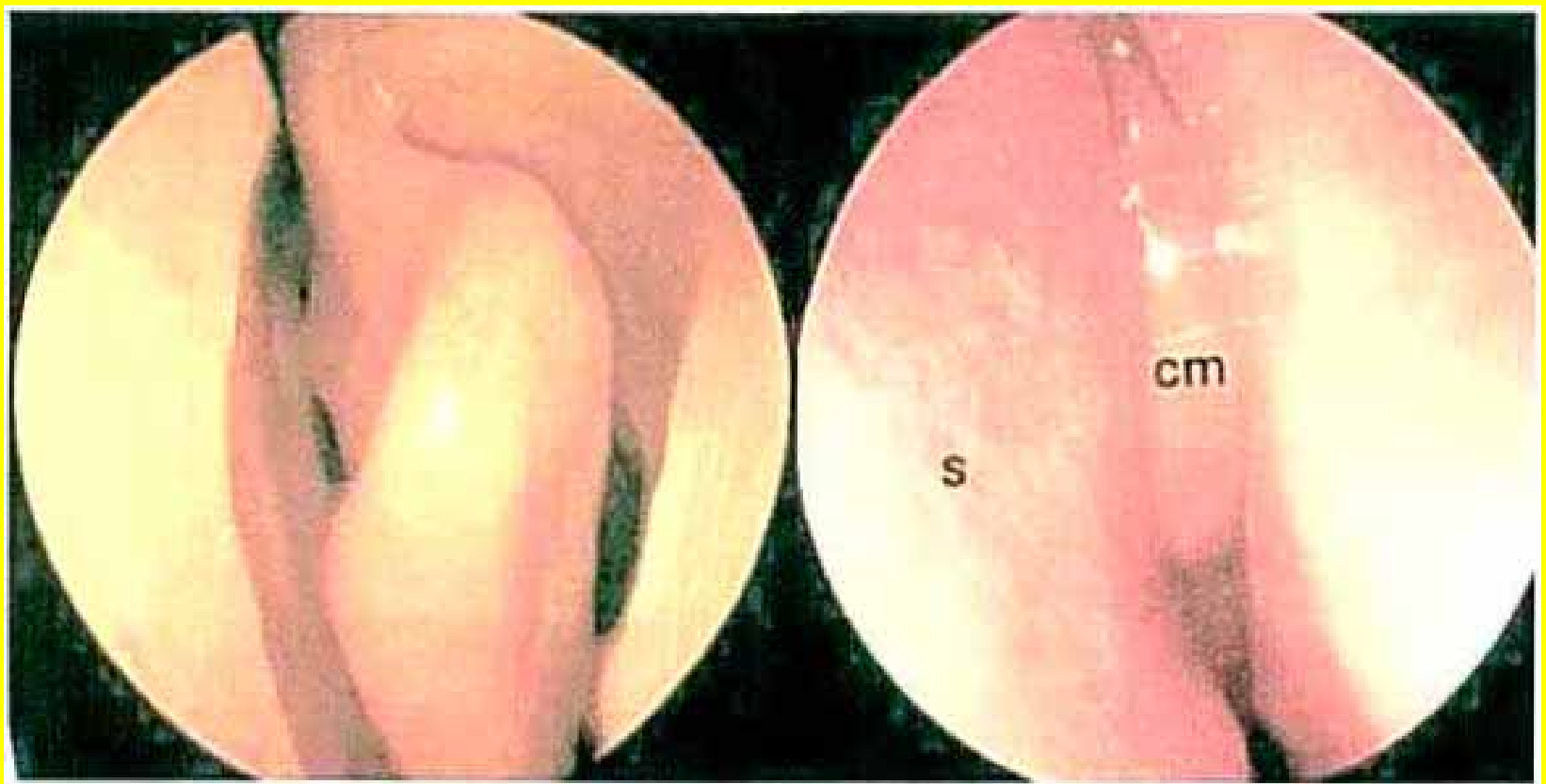
POLIEPE



NASALE SEPTUM



MIDDEL MEATUS



SEPTALE SPUR



AGGER NASI SEL

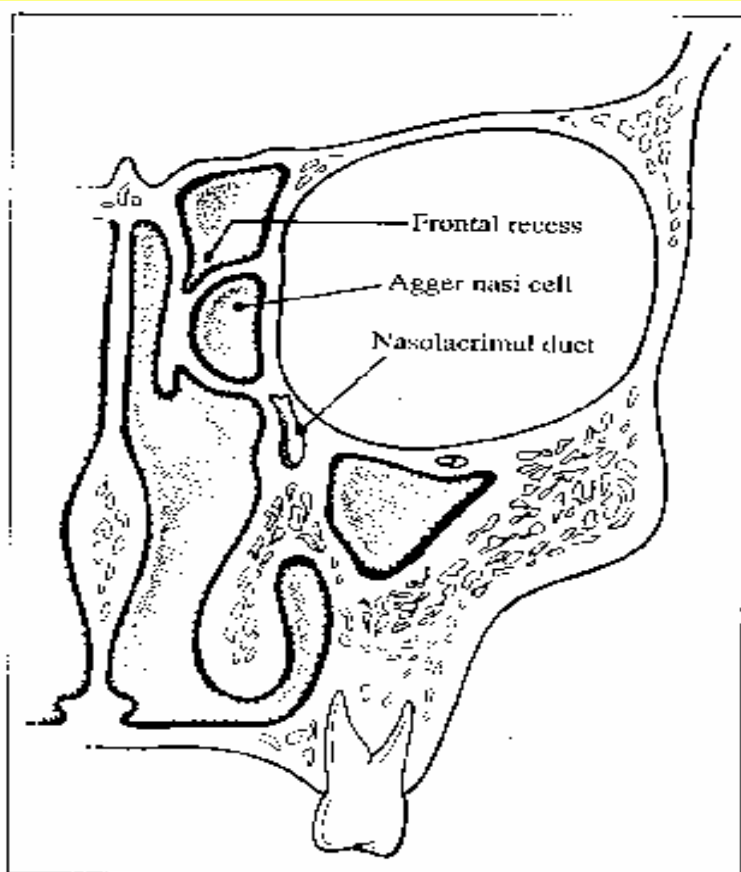
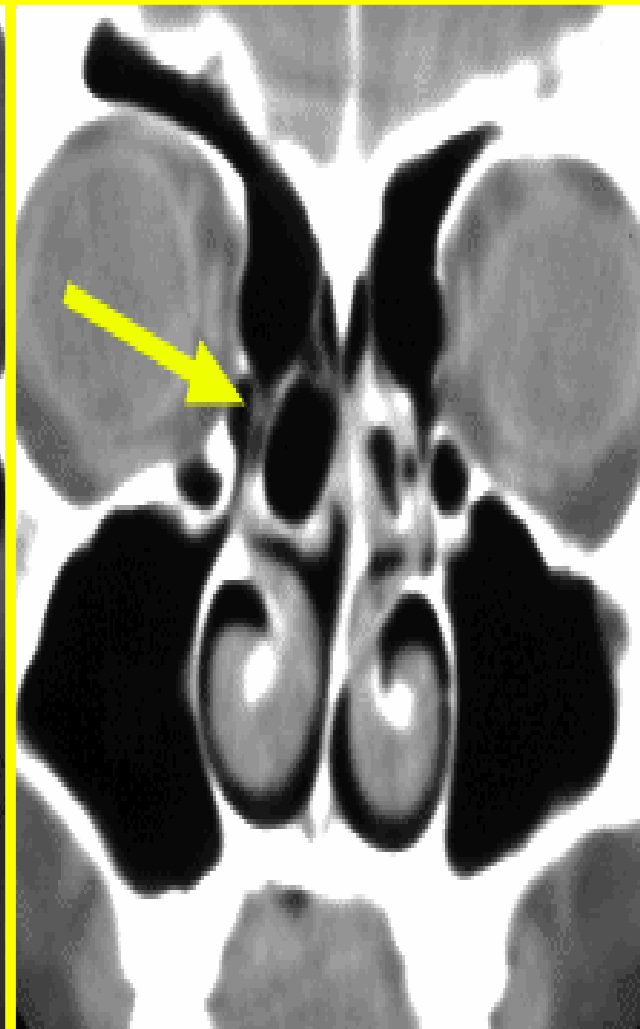
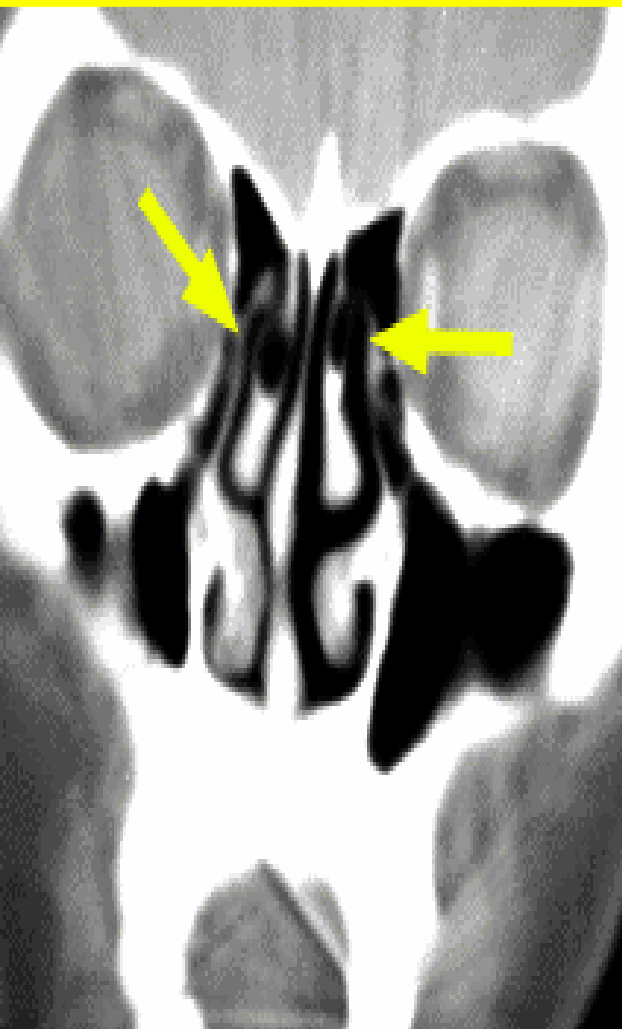


Fig 5. Agger nasi. Its position is shown relative to frontal recess and nasolacrimal duct.



CONCHA BULLOSA



SIMPTOME EN TEKENS

- major
 - *gesig*
 - pyn/drukking/volheid**
 - *nasaal*
 - obstruksie rhinorrhoea**
 - *postnasale drip*
 - *hiposmia/anosmia*
 - *koors (slegs in akute stadium)*

SIMPTOME EN TEKENS

- minor

- hoofpyn

- halitose

- moegheid

- tandpyn

- hoes

- oor

pyn/drukking/volheid

DIAGNOSE

- klinies

- *gekiedenis*

- *ondersoek*

- anterior rhinoskopie

- pharyngeale ondersoek

- beperkte waarde vir X-strale

KLASSIFIKASIE

- **akuut** *tot 4 weke* 2 of meer major simptome/tekens
1 major en 2 minor simptome/tekens
- **subakuut** *<12weke*
- **akuut herhalend** *4 of meer akute episodes per jaar*
- **chronies** *>12 weke*

BEHANDELING

- gehospitaliseerde pt.
- immuun onderdruk
- herhalende respiratoriese infeksie
- AB in laaste 6 weke
- chroniese infeksie
- vermoed weerstandige organisme

Beta-Laktaam Weerstandige Antibiotika

KOMPLIKASIES

ORBITAAL

- I preseptale swelling
- II orbitale sellulitis
- III subperiostale abses
- IV orbitale abses
- V kaverneuse sinus trombose

KOMPLIKASIES

INTRAKRANIAL

I meningitis

II abses formasie

epiduraal

subduraal

serebraal

III Trombophlebitis

superior sagitale sinus trombose

kaverneuse sinus trombose

ADJUVANTE RX

- hidrasie
- sistemiese steroide - *kontroversieel*
- lokale steroide
- nie antihistamiene nie
- nasale douche
 - *sout/koeksoda*
- simptomaties