

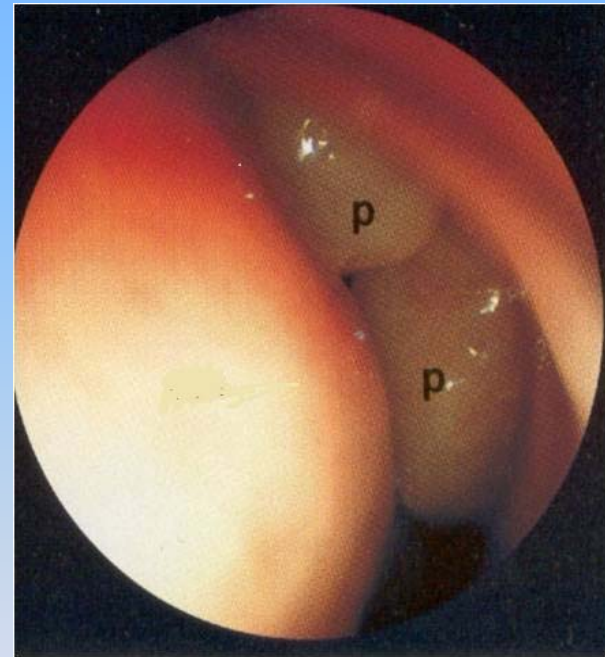
# NASAL POLYPI



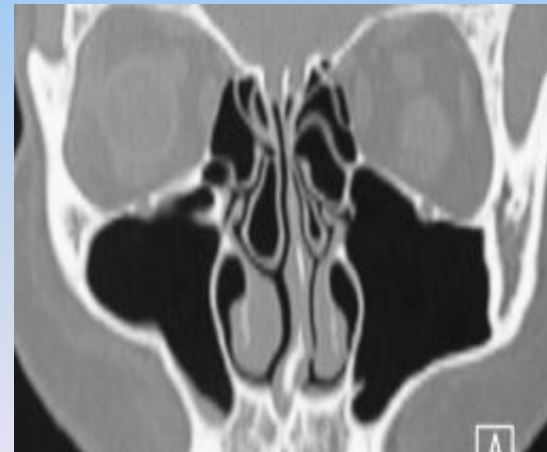
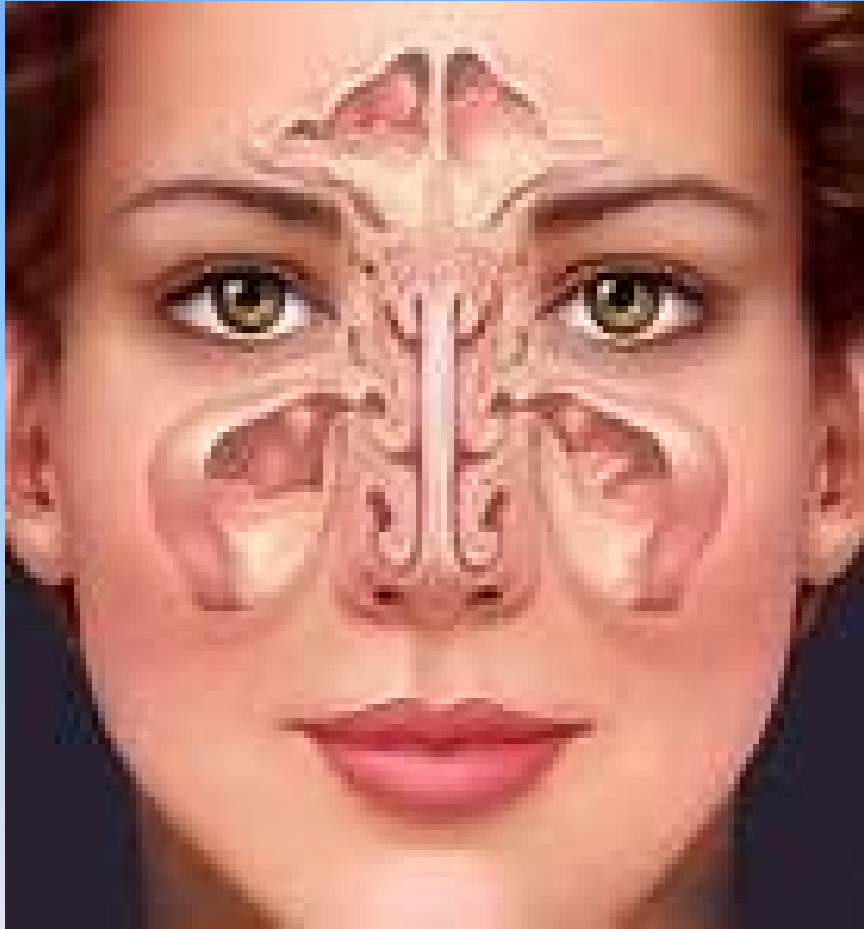
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Department of ENT  
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# NASAL POLYPI

- **Definition and types**
- **Aetiology**
- **Associated conditions**
- **Symptoms and signs**
- **Histopathology**
- **Diagnosis**
- **Management**



# ANATOMY OF PNS



# WHAT IS POLYP ?

**Non-neoplastic masses of oedematous nasal or sinus mucosa characterized by gross extracellular submucosal edema**

**or**

**Fibroedematous infiltration of sub-epithelial tissue**



# NASAL POLYP : TYPES

- Antrochoanal
- Ethmoidal



# ETHMOID POLYPS

## Ethmoid Sinus

- **Complex labyrinth enclosing 3-21 cells. Polyps arise from the lining of these cells and prolapse into middle meatus**
- **May also arise from uncinete process, bulla ethmoidalis, sinus ostia and middle turbinate**



# AETIOLOGY

- Not clearly understood
- **Allergy** main implicated factor  
(90% Eosinophilia, Asthma,  
Allergic symptoms)

Other theories include

- **Bernoulli effect**
- **Infections**



# CONDITIONS ASSOCIATED WITH POLYPS

- **Asthma**
  - **20-25% have coexisting polyps and asthma**
- **Aspirin Hypersensitivity**
  - **8% have coexisting asthma, polyps and aspirin sensitivity (samters triad)**
- **Cystic Fibrosis**
- **Kartageners Syndrome**
- **Youngs Syndrome**
- **Churg-strauss Syndrome**
- **Nasal Mastocytosis**





# CLINICAL FEATURES

## *Symptoms*

- **Mostly seen in adults**
  - if <2 years, exclude meningocoele
  - If <10 years, exclude cystic fibrosis (rare)
- **Sneezing/watery nasal discharge**
- **Nasal obstruction or stuffiness (BILATERAL)**
- **Hyposmia/anosmia**
- **Postnasal drip**
- **Hyponasal voice**



# CLINICAL FEATURES

## *Signs*

- Smooth, glistening, pale masses, not sensitive to probing, do not bleed
- Multiple and bilateral
- Flaring of alar cartilages, broadening of nose and increased intercanthal distance



# POLYPS-ENDOSCOPIC AND RADIOLOGIC VIEW



# HISTOPATHOLOGY

- Lined by respiratory epithelium but may show squamous metaplasia.
- Submucosa grossly oedematous.
- Striking eosinophilia.



# DIAGNOSIS

- Diagnosis mainly clinical
- Routine work-up
  - Haematological, biochemical, ECG/X rays
- Radiology
  - X ray PNS
  - CT PNS (inv of choice)
    - Full extent appreciated
    - Malignancy can be excluded
    - Sinus anatomy better appreciated



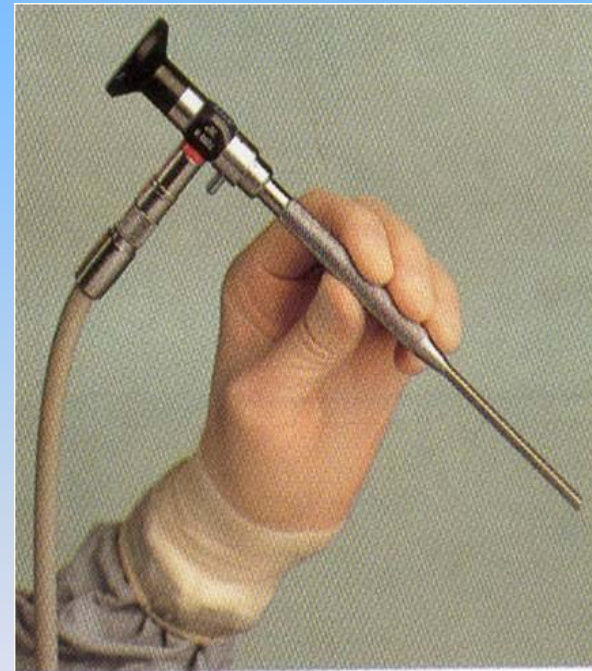
# TREATMENT

## Medical

- Antihistamines,
- Steroid sprays
- Oral steroids

## Surgical

- Simple polypectomy
- Intranasal ethmoidectomy
- External ethmoidectomy
- FESS



# ANTROCHOANAL POLYP

- Distinct entity from ethmoidal polyps
- Arise from floor and lateral wall of maxillary antrum

## AETIOLOGY

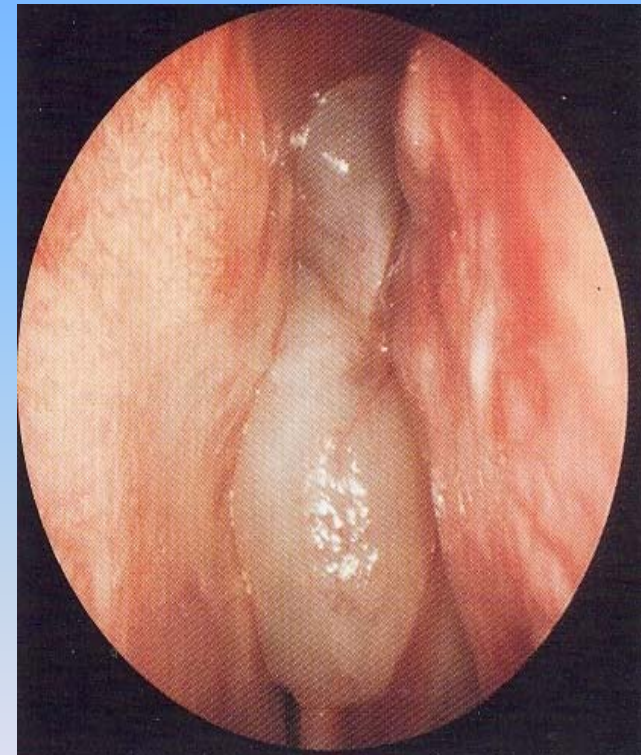
- Exact cause not known -  
nasal allergy with infection is implicated



# PATHOLOGY

- Polyps start in the maxillary sinus and grow out of the ostium or accessory ostium
- Usually grow posteriorly into the choana and further into the oropharynx
- Seen as single unilateral pale grey masses in the nose or in the choana/oropharynx

*Histologically* similar to ethmoidal polyps but there is no eosinophilia





# CLINICAL FEATURES

## *Symptoms*

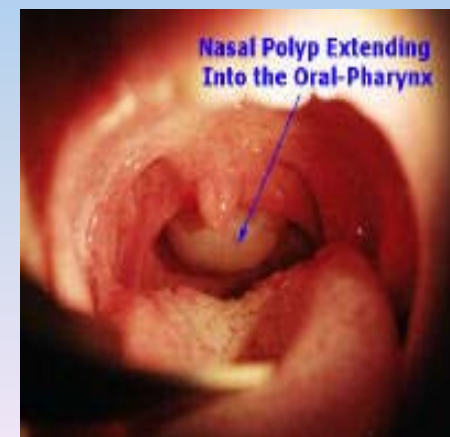
- Usually occurs in younger children
- Unilateral nasal obstruction
- May be bilateral if obstructs the choana
- Hyponasal voice
- Nasal discharge



# CLINICAL FEATURES

## *Signs*

- **Single, unilateral, greyish, smooth mass**
- **Insensitive to probing and does not bleed on touch**
- **Better seen on posterior rhinoscopy as a globular mass in the choana or hanging down into the oropharynx**



# INVESTIGATIONS

- Routine investigations as for ethmoidal polyps
- X ray PNS may show opacified antrum
- CT Scan of Nose and PNS is method of choice
  - Delineates anatomy
  - Helps in diagnosis



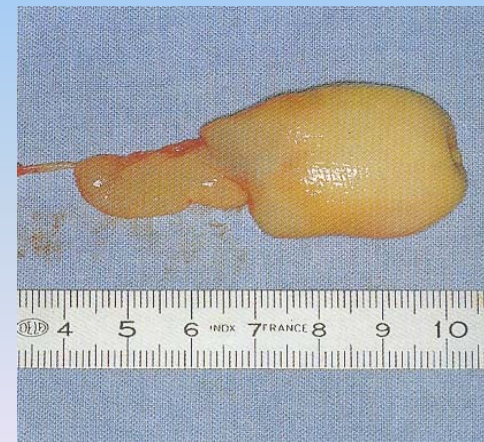
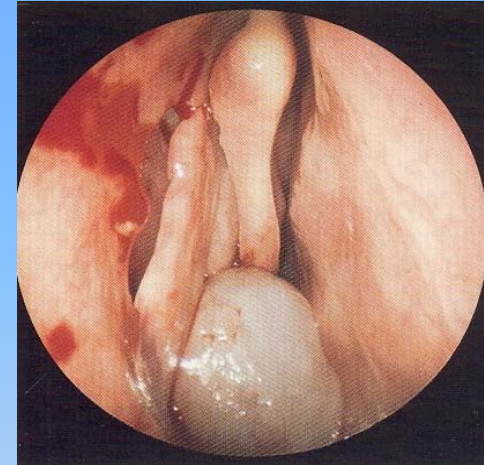
# TREATMENT

## Medical

- Antibiotic
- Anti-histaminic
- Decongestant

## Surgical

- Avulsion by nasal or oral route
- *Endoscopic polypectomy*
- Caldwell Luc for recurrences



# DIFFERENCES BETWEEN ETHMOIDAL AND AC POLYPS

## Ethmoidal polyps

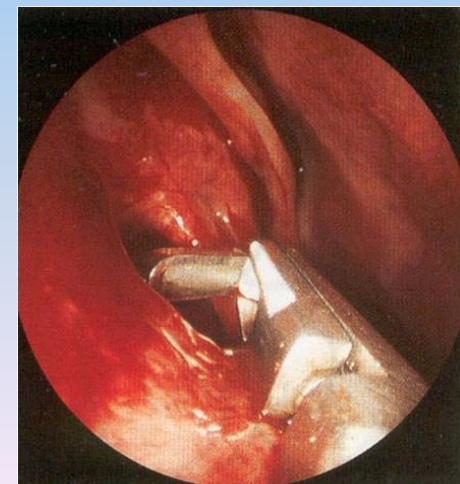
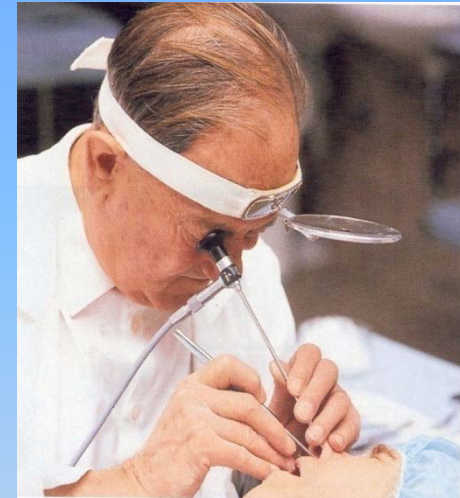
- Usually adults
- Possibly allergic cause
- Multiple, bilateral
- Arises from ethmoidal cells, grows anteriorly
- Recurrence common
- Treated with polypectomy or ethmoidectomy or fess

## AC polyps

- Usually children
- Infections
- Single, unilateral
- Arises from maxillary sinus, grows posteriorly
- Recurrence uncommon if removed completely
- Treated with avulsion, caldwell luc and fess

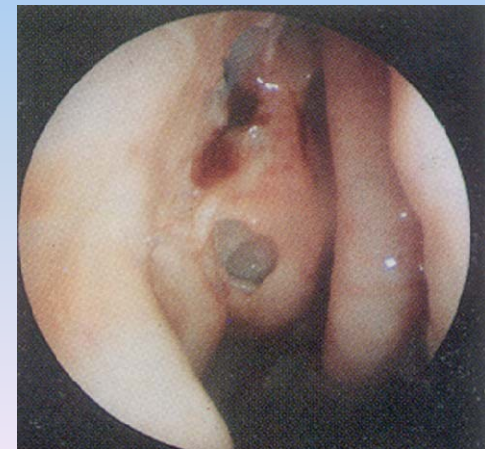
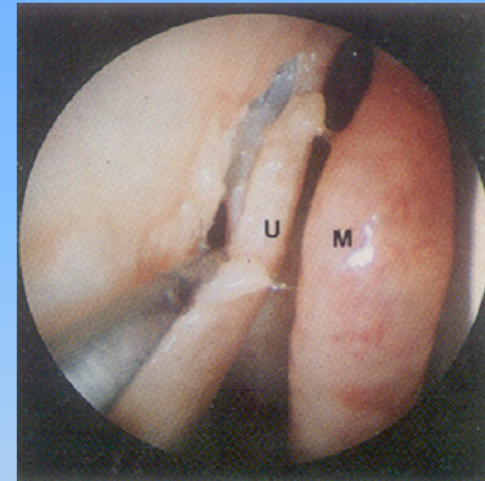
# FUNCTIONAL ENDOSCOPIC SINUS SURGERY (FESS)

- Started in Graz, Austria by Dr Messerklinger and further popularized by Dr. Stammberger
- Based on the principle of removal of only diseased mucosa while retaining normal physiology and anatomy
- Needs
  - Rigid endoscopes of 0, 30 and 70 degrees
  - Special instruments



# FUNCTIONAL ENDOSCOPIC SINUS SURGERY (FESS)

- FESS can be done under GA or LA
- Diseased sinus mucosa or pathology is removed under direct vision with endoscopic control and precision and minimal complication rates





*Thank You*