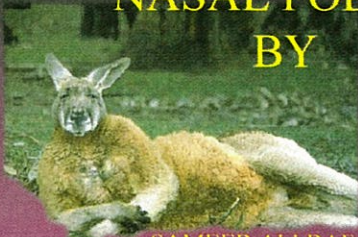


# NASAL POLYPS


## BY



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RHINOLOGY & RHINOPLASTY

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- Associated with Rhinitis & Allergy
- 25 % have +ve Skin Prick Tests
- **Infection:**
  - Rhinitis
  - Sinusitis-chronic paranasal infection
  - Allergy : Aspirin Sensitivity, Seasonal & perennial Allergic Rhinitis
- **Idiopathic**
- **Neoplasia**
- **Assoc. with other diseases**
  - Asthma
  - Cystic fibrosis
  - bronchiectasis



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## NASAL POLYPS


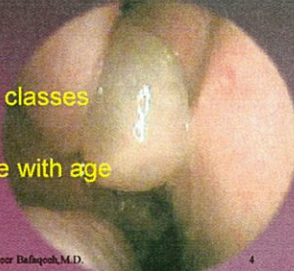
- Benign pale gray sacks of oedematous mucosa
- Arise from the Ethmoid cells
- Etiology : infection, allergic, 90% eosin.
- Eosinophils & skin tests

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## Frequency



- Age , sex [asthma], bilateral !!!?
- Adults 1-4%
- Children 0.1%
- All races and social classes
- M/F 2-4:1 in adults
- Increasing incidence with age
- Bilateral

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Immunoglobulins normally unaffected. IgA2 and IgE higher in middle and inferior turbinate polyps

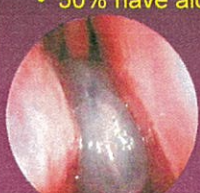

- 100 to 1000 times histamine / serum
- Mast cell degranulation factors:  
[allergy] [temp., drugs, & complement factors]

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### Associated with allergic conditions



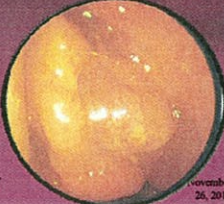
- 20-50% have asthma
- 8-26% have aspirin intolerance
- 50% have alcohol intolerance

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- 50% nasal polyps => asthma
- Nasal polyps # -> chest symptoms

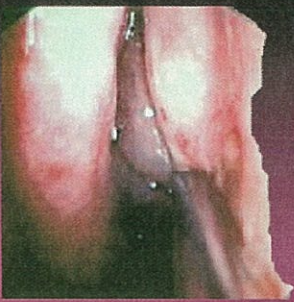
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- ASA or Sempter's triad in 8%
- Polyp, asthma & aspirin sensitivity
- Miserable time/ Salicylate-free diet
- Nasal polyposis: chronic & recurrence

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- Endoscopic view of left nasal cavity. Polyp protruding from uncinate process



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### Presentation



- Asymptomatic
- Airway obstruction
- Postnasal drip
- Dull headaches
- Snoring
- Rhinorrhoea
- Hyposmia / Anosmia
- Epistaxis (often other lesion)
- Obstructive sleep apnoea
- Craniofacial abnormalities
- Optic nerve compression



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### Clinical Features


- Nasal obstruction, Rhinorrhea
- Postnasal drip: clear, yellow or green
- -> degree of eosinophilia or infection

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- Sneezing & - sense of smell
- Unusual pain, unless 2<sup>nd</sup> inf.
- Bleeding or serosanguinous discharge !!carcinoma

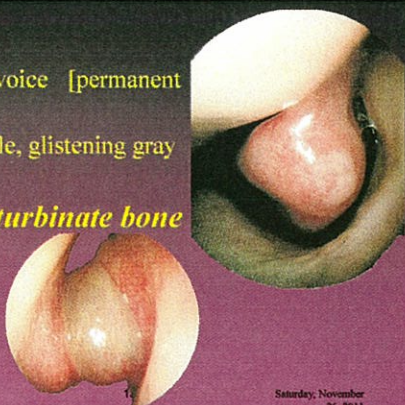
"total whiteout"



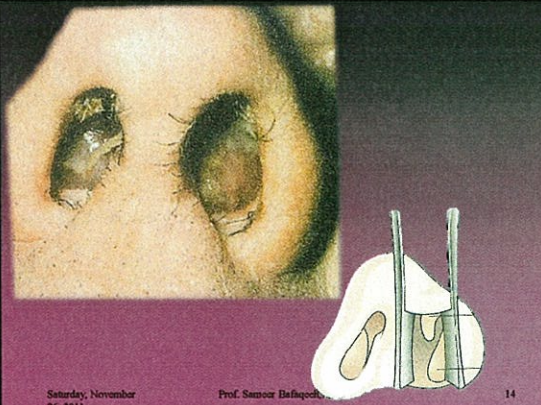
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- Hyponasal voice [permanent cold]
- Bilateral pale, glistening gray sacks
- **Polyp & turbinate bone**

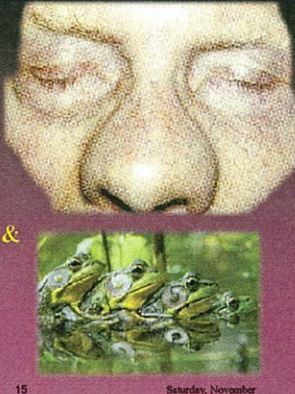


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- **Frog face**
- Variable symptoms & signs
- Spontaneous regression



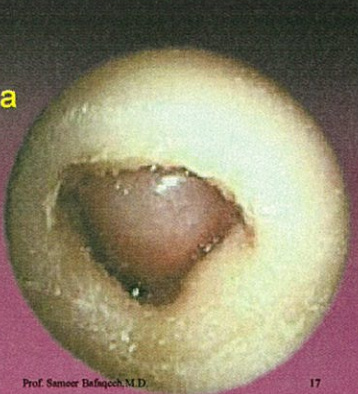
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### Differential

- Encephaloceles
- Gliomas
- Dermoid tumours
- Haemangiomas
- Papillomas / transitional cell papillomas
- Nasopharyngeal angiofibromas
- Rhabdomyosarcomas
- Lymphomas
- Neuroblastomas
- Sarcomas
- Chordomas
- Nasopharyngeal carcinomas

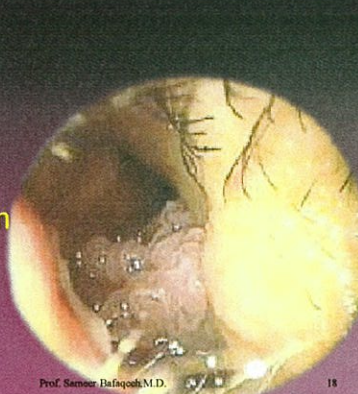
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- **Intranasal gliomas in a 5 year old**



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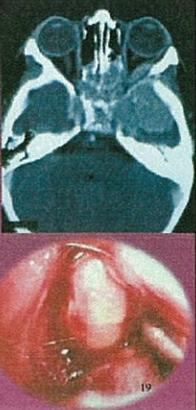
- **Nasal papilloma arising from septum**



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- Rhabdomyosarcoma affecting posterior ethomids, orbit, left middle fossa and skull base of cavernous sinuses



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### Investigations

- Coronal CT scan
- MRI scan
- Flexible endoscopy
- Rigid endoscopy



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### Investigations

- **RAST / skin testing**  
[H, dust or pollen]
- **Nasal smear**
  - Microbiology
  - Eosinophil's (allergic component)
  - Neutrophils (chronic sinusitis)

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### NASAL POLYPS Investigation

In Child >

- ✓ **CT scanning** (Encephalocele )
- ✓ **Sweat test** (Cystic Fibrosis )

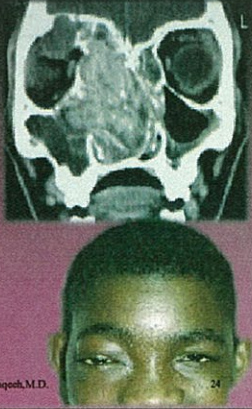
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- Coronal CT scan of sinuses of patient with **cystic fibrosis**



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- Allergic fungal sinusitis

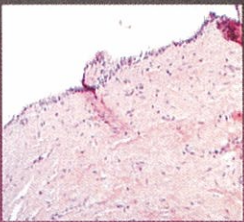


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### Histological findings


- Pseudostratified ciliated columnar epithelium
- Thickened epithelial basement membrane
- Oedematous stroma



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### Medical treatment

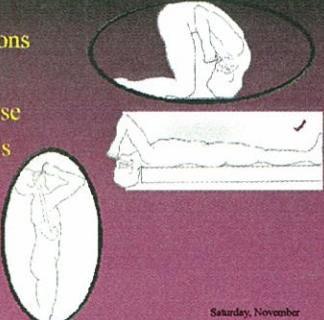
- ❖ Topical steroids :
  - good in 50%
  - First line of management
  - 1- month course & review
  - Head down position [drops]
  - Aqueous spray :daily basis [Leaving the spray by the toothbrush]
  - Steroid sprays unwanted effects



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### Systemic steroids

- No contraindications
- Sever polyposis
- Short reducing dose
- Avascular necrosis



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- **Oral and nasal steroids**
  - High dose prednisolone and nasal steroid for 20 days will eliminate 50% of polyps
  - Lower bioavailability in modern nasal steroids
  - Poor response in certain groups
  - Intranasal injection not effective
- **Immunotherapy**
- **Diet (no effect)**

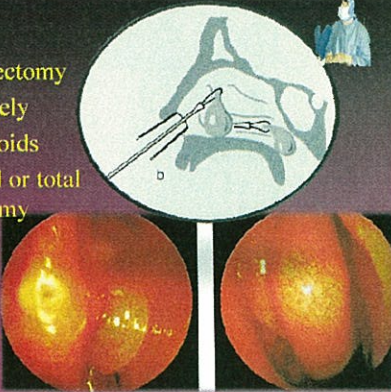
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### Surgical Treatment

- **Traditional polypectomy**
- **Microdebrider**
- **Endoscopic sinus surgery**
- Recurrence
  - Multiple small polyps common
  - Large and antro-coanal less so

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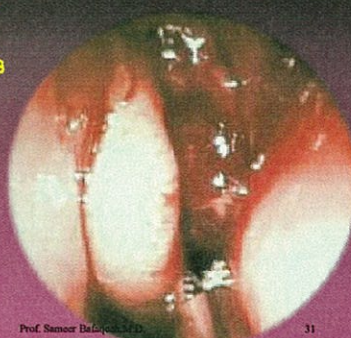
- Nasal polypectomy
- Postoperatively Topical steroids
- FESS Partial or total ethmoidectomy



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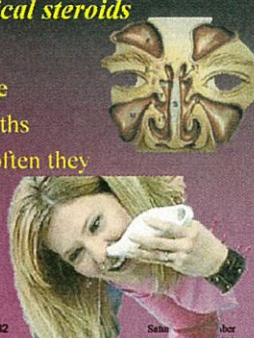
- Microdebrider entering left middle meatus



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**Postoperatively Topical steroids**


- The Rate of recurrence
- Minimal time is 3 months
- Severity, age & how often they have recurred



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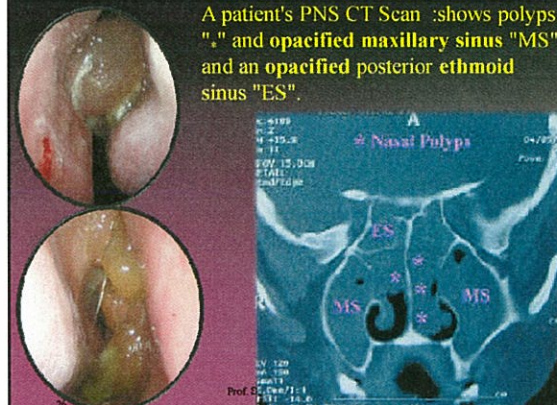
**summary**

A nasal polyp is a mass of gelatinous tissue which usually forms from allergy. If only on one side, one must rule out a carcinoma or cancer. Allergic nasal polyps can be treated by topical nasal steroids or by surgical removal. Often endoscopic sinus surgery is needed for their removal.



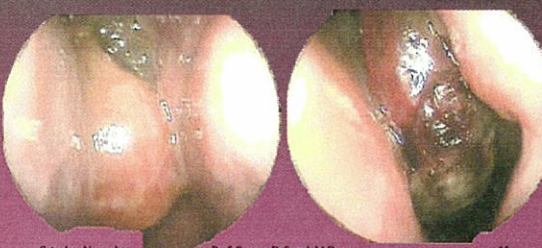
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A patient's PNS CT Scan shows polyps "P" and opacified maxillary sinus "MS" and an opacified posterior ethmoid sinus "ES".



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The nasal polyps are from a 65 year old patient who has had four previous sinus operations. The last one was twelve years ago. The polyps fill his nasal cavity. On CT Scan there was erosion of the posterior table of the frontal sinus and intracranial air.



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**Summary**

- Common condition
- Aetiology not fully understood
- Majority are not allergic in nature
- Medical treatment can be effective
- Even with surgery, recurrence is common



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**Key Points:**

1. Be suspicious of the unilateral nasal polyp—it may be malignant. Always send it for histology.
2. Most patients presenting with polyps should have them removed using endoscopic techniques. Postoperative topical steroids should be used.
3. Nasal polyps are “like weeds”—they tend to recur; the most effective weed killer is topical steroid.
4. Polyps are rare in children: exclude cystic fibrosis.

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### ANTROCHOANAL POLYP

- Uncommon Unilateral polyps (lining of MS)
- Single polyp (Maxillary antrum)
- Posterior accessory ostium
- Dumbbell shape
- Benign polyp of unknown etiology




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- Unilateral nasal obstruction, worse on expiration
- Ball valve effect
- Otic symptoms
- Endoscopic nasal removal
- Can recur

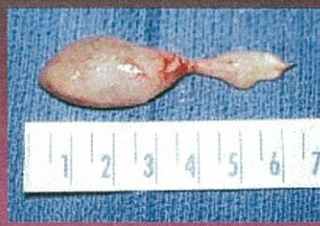
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- Left anterior nasal cavity showing an antro-coanal polyp. Sucker is pushing inferior turbinate to one side



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- Antrochoanal polyp. Stalk attached to medial maxillary wall



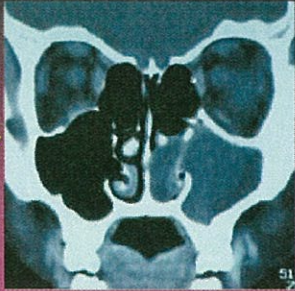
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- Characteristic radiographic appearance
- D.D. : Inf. Turbinate enlargement, polypoid rhinosinusitis, juvenile N angiofibroma, mucus R cyst, mucocele, benign or malignant nasopharyngeal tumors
- Preop. Components identification
- Caldwell-Luc procedure
- Snare Simple polypectomy :20%recurrence

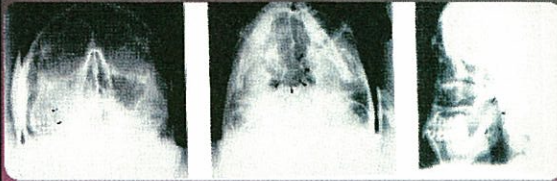
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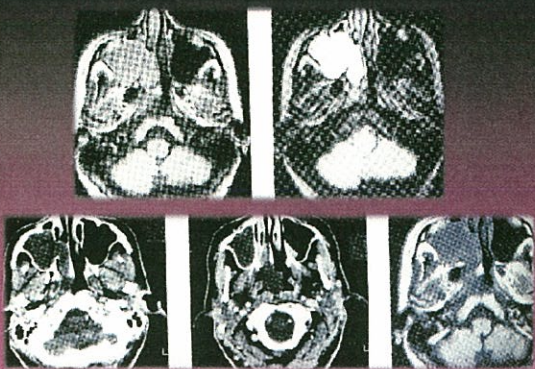
- Coronal CT scan through anterior sinuses. Opacification of left maxillary sinus, opacification of inferior half of nasal cavity.




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# Any Questions?

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