NASAL POLYPI

Dr. Arjun Dass
Prof. & Head,
Department of ENT
GMCH-32, Chandigarh
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 uncinate 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
• Kartagener 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
<table>
<thead>
<tr>
<th>Differences Between Ethmoidal and AC Polyps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethmoidal Polyps</strong></td>
</tr>
<tr>
<td>• Usually adults</td>
</tr>
<tr>
<td>• Possibly allergic cause</td>
</tr>
<tr>
<td>• Multiple, bilateral</td>
</tr>
<tr>
<td>• Arises from ethmoidal cells, grows anteriorly</td>
</tr>
<tr>
<td>• Recurrence common</td>
</tr>
<tr>
<td>• Treated with polypectomy or ethmoidectomy or fess</td>
</tr>
<tr>
<td><strong>AC Polyps</strong></td>
</tr>
<tr>
<td>• Usually children</td>
</tr>
<tr>
<td>• Infections</td>
</tr>
<tr>
<td>• Single, unilateral</td>
</tr>
<tr>
<td>• Arises from maxillary sinus, grows posteriorly</td>
</tr>
<tr>
<td>• Recurrence uncommon if removed completely</td>
</tr>
<tr>
<td>• Treated with avulsion, caldwell luc and fess</td>
</tr>
</tbody>
</table>
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