NASAL POLYPI

Dr. Arjun Dass
Prof. & Head
Department of ENT
NASAL POLYPI

• DEFINITION AND TYPES
• AETIOLOGY
• ASSOCIATED CONDITIONS
• SYMPTOMS AND SIGNS
• HISTOPATHOLOGY
• DIAGNOSIS
• MANAGEMENT
DEFINITIONS AND TYPES

NON-NEOPLASTIC MASSESS OF ODEMATOUS NASAL OR SINUS MUCOSA CHARACTERIZED BY GROSS EXTRACELLULAR SUBMUCOSAL EDEMA

OR

FIBROEDEMATOUS INFILTRATION OF SUB-EPITHELIAL TISSUE

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 and 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'S 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
PATHOLOGY

• LINED BY RESPIRATORY EPITHELIUM BUT MAY SHOW SQUAMOUS METAPLASIA

• SUBMUCOSA GROSSLY OEDEMATOUS

• STRIKING EOSINOPHILIA
**DIAGNOSIS**

- **DIAGNOSIS MAINLY CLINICAL**
- **ROUTINE WORK-UP**
  - HAEMATOLOGICAL, BIOCHEMICAL, ECG/CXR
- **RADIOLOGY**
  - X RAY PNS
  - CT PNS (INV OF CHOICE)
    - FULL EXTENT APPRECIATED
    - MALIGNANCY CAN BE EXCLUDED
    - SINUS ANATOMY BETTER APPRECIATED

*Polyps*
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 CHOANAEOROPHARYNX

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

ENDOSCOPIC VIEW OF POLYPS
THANK YOU