SINUSITIS

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Inflammation of the paranasal sinuses – it may be restricted to a single sinus, present in several or in all sinuses of one or both sides (pansinusitis)

Acute, acute recurrent and chronic mucopurulent infections occur.

ACUTE SINUSITIS

Causes:

rhinitis - spread via submucosal lymphatics or through ostia
dental - extraction or infection of roots
swimming and diving
fractures involving sinuses

Presdisposing factors:

nasal obstruction
sinus ostium obstruction
- polyps, vasomotor / allergic swelling
- rarely tumours

previous infection in sinuses

mucociliary disorders
immune deficiency

Bacteriology:

pneumococcus, streptococcus, staphylococcus, H. influenza, klebsiella
anaerobes of dental origin

Site:

Acute maxillary most common presenting as single sinus infection
- **pain** and **tenderness** in cheek, temporal region, upper teeth
- **discharge** in middle meatus or as post nasal drip if ostium patent
- **pyrexia, malaise**

Treatment
- appropriate antibiotics (add metronidazole if of dental origin)
- decongestants – systemic and local (**topical nasal steroids**)
- analgesia
- drainage - surgical "washout" if drainage not achieved medically
- dental if of tooth origin

Acute frontal usually associated with ethmoid and maxillary infection
- **frontal headache, pain, tenderness** – early morning, subsiding later
- **discharge** in high, anterior middle meatus

Treatment
- **antibiotics, decongestion, analgesics**
- with concomitant maxillary involvement – antral lavage
- if severe or unresponsive – frontal trephine ± irrigation tubes

Ethmoid usually involved with other sinuses, seldom as separate entity
- **pain** between eyes and frontal headache
- **discharge** in middle and superior meati

Treatment
- resolves with treatment of other sinuses

Sphenoid rare – associated with posterior ethmoid infection
- **discharge** in nasopharynx

Treatment
- resolves with treatment of other sinuses

Differential Diagnosis dental pain, migraine, trigeminal neuralgia, neoplasms of sinuses
Erysipelas, temporal arteritis, herpes zoster

CHRONIC SUPPURATIVE SINUSITIS

Diagnosis of exclusion in which nasal allergy and vasomotor rhinitis are ruled out

Follows single or repeated attacks of acute sinusitis

Bacteriology: mixed streptococci, anaerobes, pneumococci, B. proteus, pseudomonas, E. coli

Presents: nasal or postnasal discharge
nasal obstruction to varying degree
headache – "heavy" head or dull ache over affected sinus(es)
anosmia or cacosmia (if of dental origin)

Treatment: decongestants – oral and **topical nasal steroids**
antibiotics chosen with regard to mixed nature of infection

Functional **E**ndoscopic **S**inus **S**urgery to correct underlying cause or abnormality of sinus drainage anatomy

COMPLICATED SINUSITIS

uncommon
most frequently result of acute exacerbation of chronic suppurative infection

osteomyelitis / osteitis

orbital - pain, cellulitis, chemosis, proptosis, abscess, vision loss

intracranial - meningitis, abscesses, cavernous sinus thrombosis

REFER TO E.N.T. AS EMERGENCY

secondary effects of sinusitis

- pharyngitis, tonsillitis, otitis media, laryngotracheitis, bronchitis, “trigger” for asthma

RADIOLOGY IN SINUSITIS

Conventional views	- O.M., O.F., S.M.V., lateral	
	- if completely opaque or air/fluid level present	- significant disease
	- mucosal thickening	- doubtful significance
C.T Scanning	- as above	
	- 42,5% of asymptomatic subjects have abnormal sinus CT	

References

Roger Gray
NJ Roland