

Fungal Sinusitis

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Acknowledgements

I have no financial conflicts

Patient photos with consent,
courtesy of Dr. Christopher Le,
University of Arizona ENT Surgery

Objectives

1. Present the different categories of fungal sinusitis
2. Case review of fungal sinusitis
3. Stress pertinent imaging findings

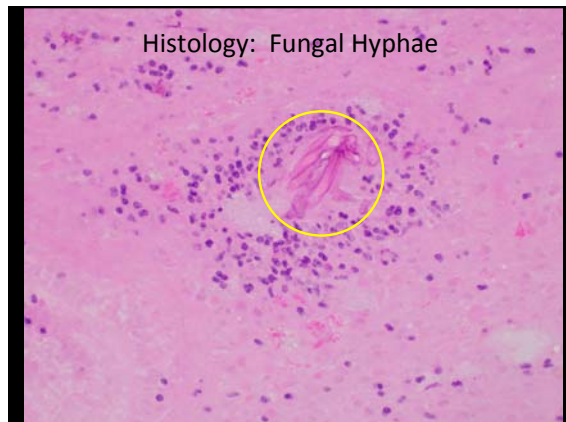
Categories of Fungal Sinusitis:

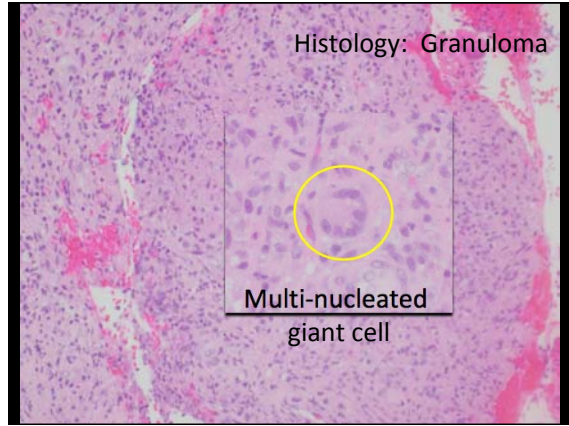
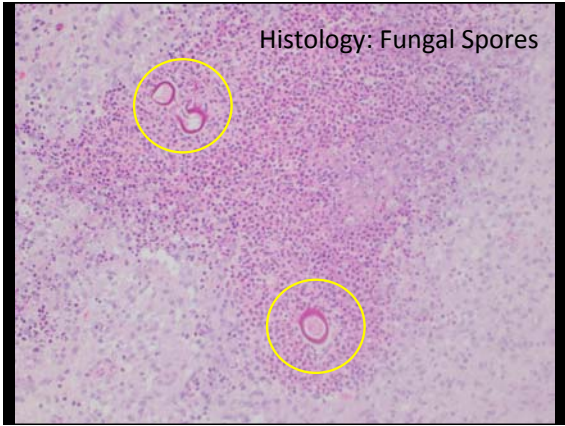
1. Acute invasive fungal sinusitis
2. Chronic fungal sinusitis
 - Non-invasive chronic colonization (mycetoma a.k.a. fungus ball)
 - Invasive
3. Allergic fungal sinusitis

Clinical Background

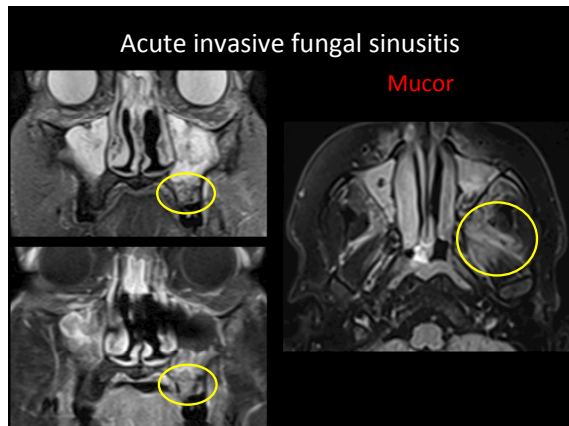
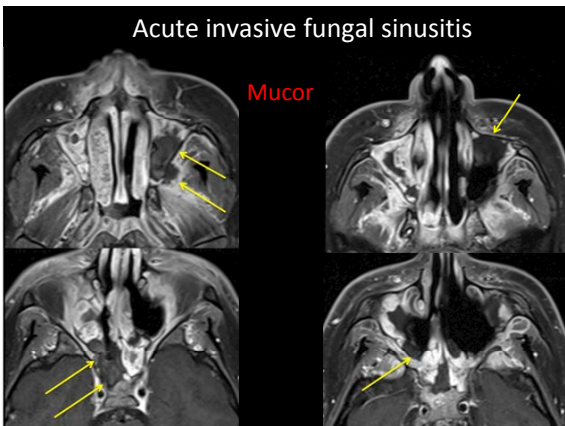
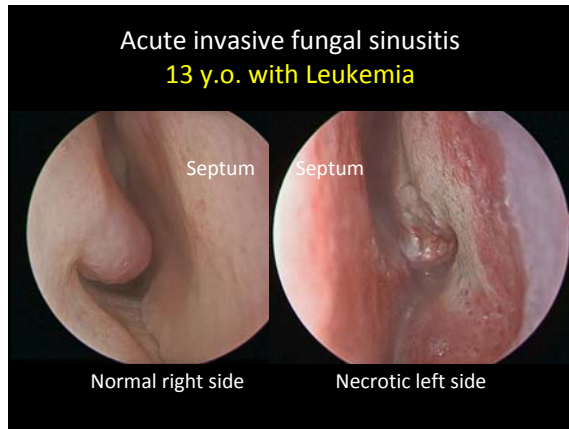
1. Fungal hyphae or Fungal yeast forms
 - Hyphal: Aspergillus, zygomycoses (mucormycoses)
 - Yeast: Candida, Histoplasma, Coccidioidomycosis
2. Aspergillus = most common etiology
3. Hyphae may not be seen unless a culture is done
4. Clinically, green, brown, or black mucosa should raise suspicion for fungal infection

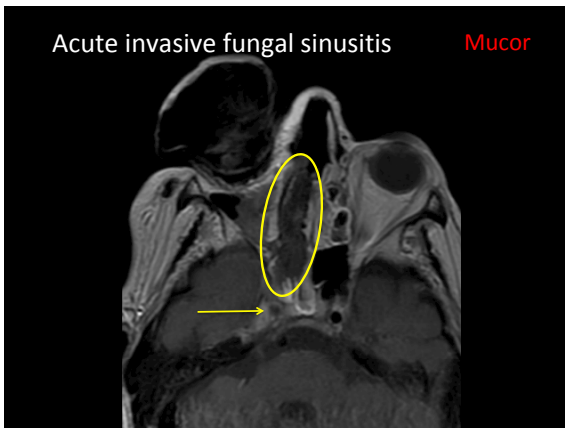
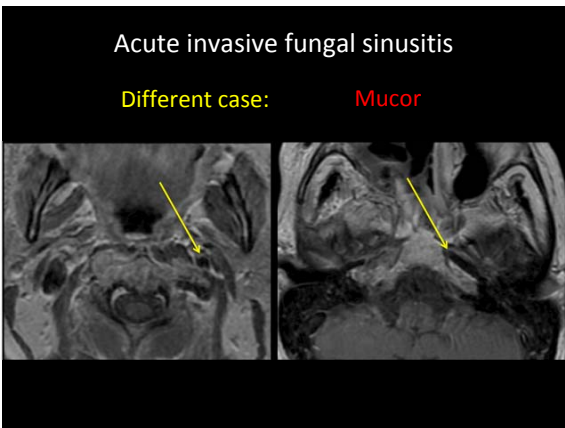
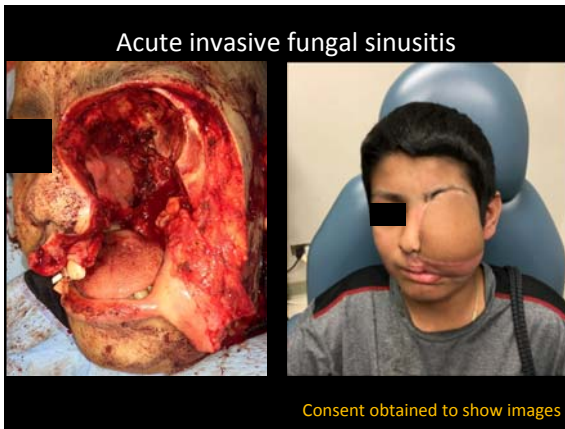
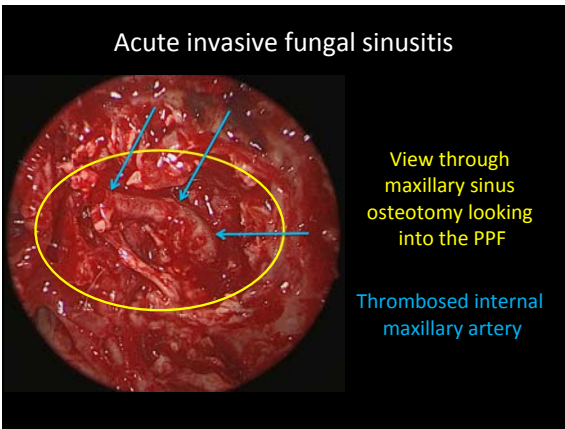
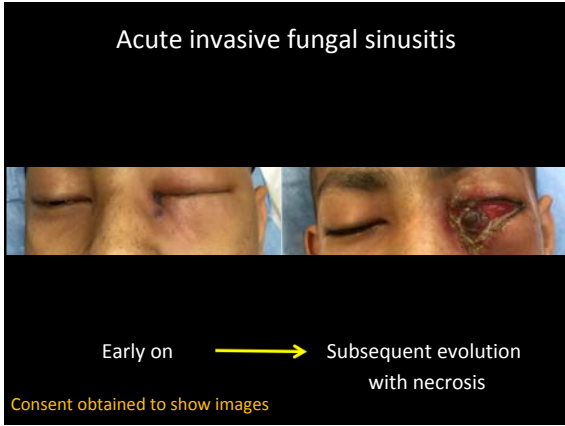
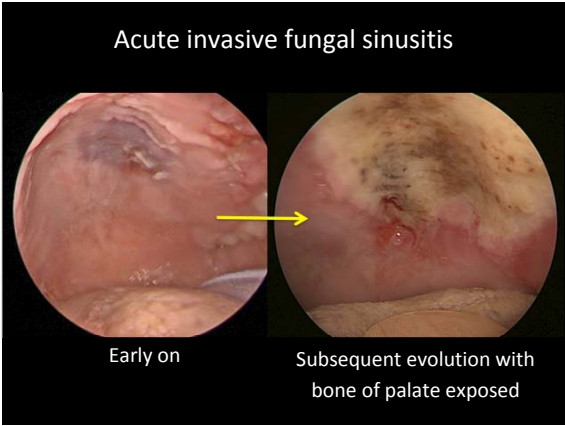
Histology: Fungal Hyphae

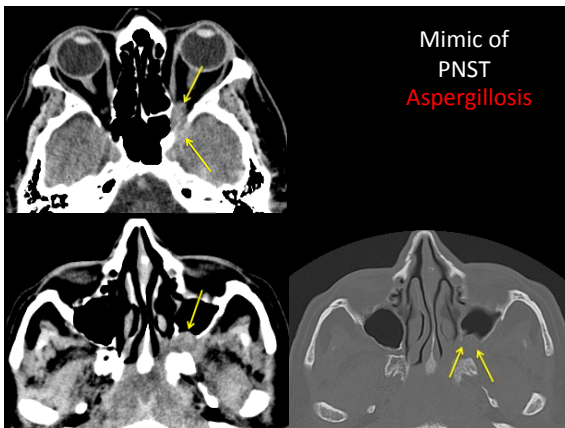
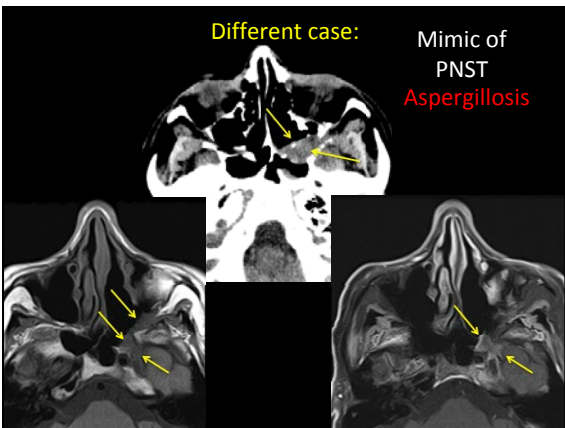
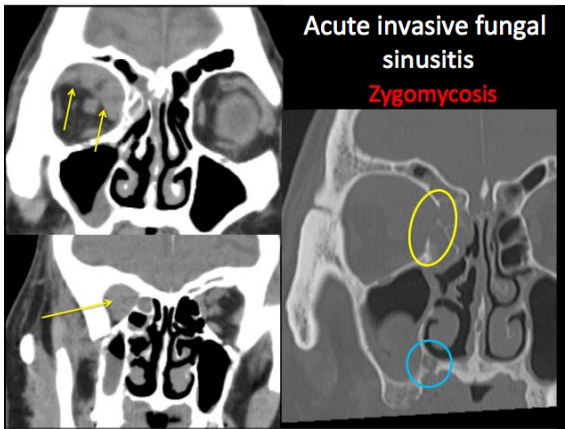
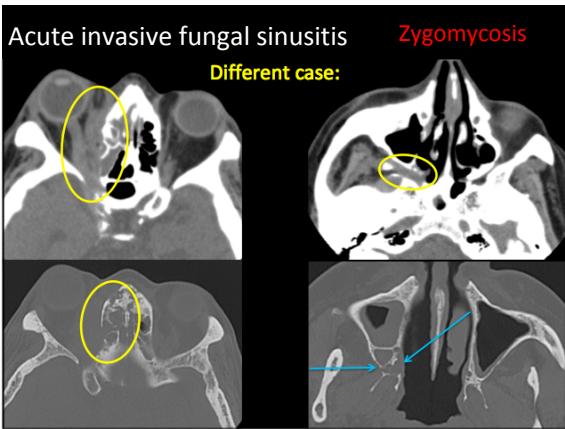
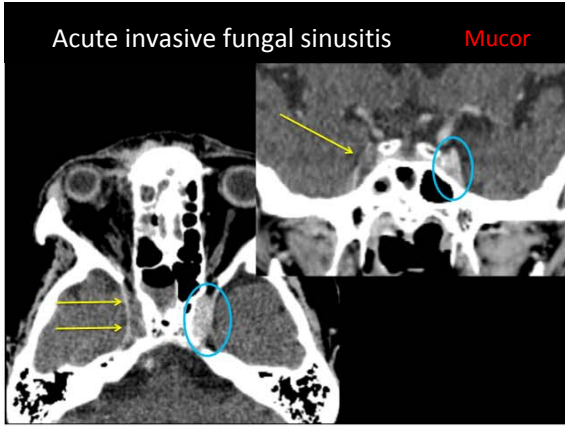
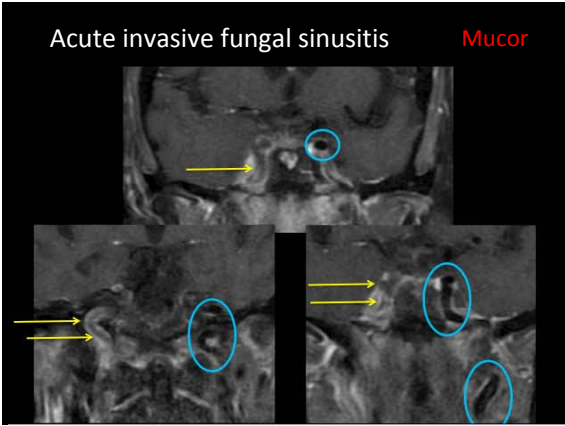


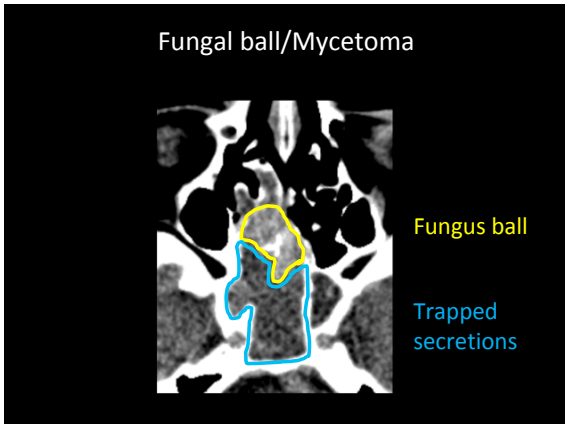
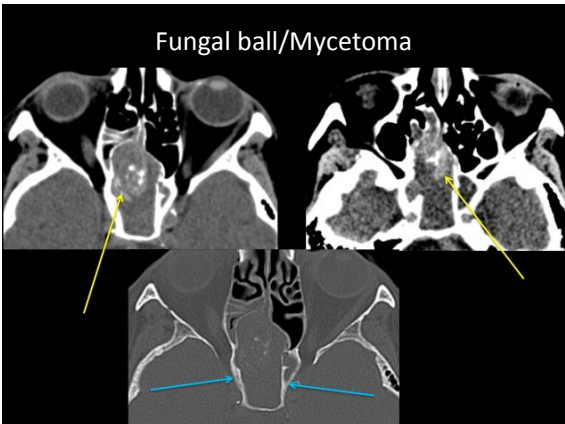
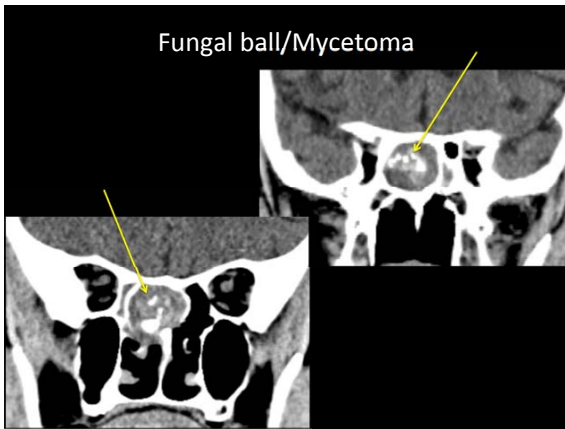
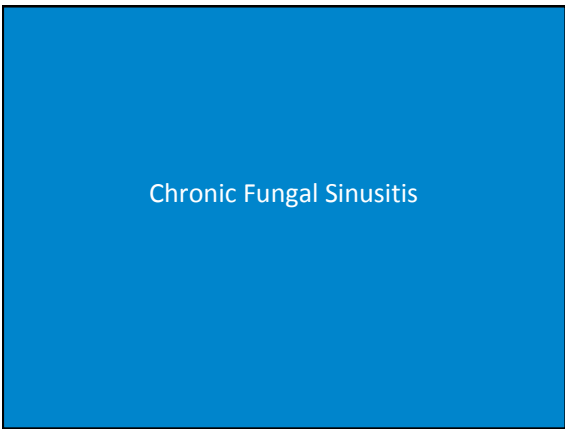
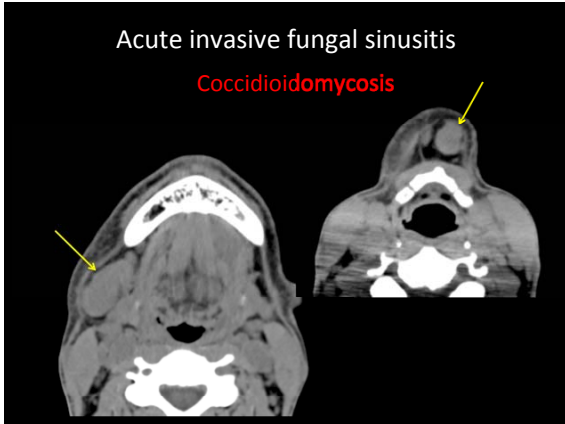
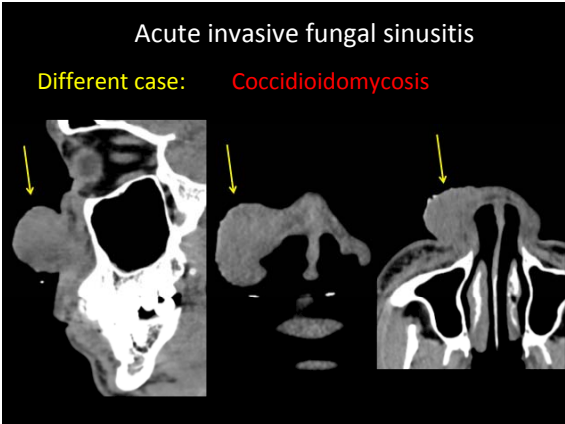


Acute Invasive Fungal Sinusitis





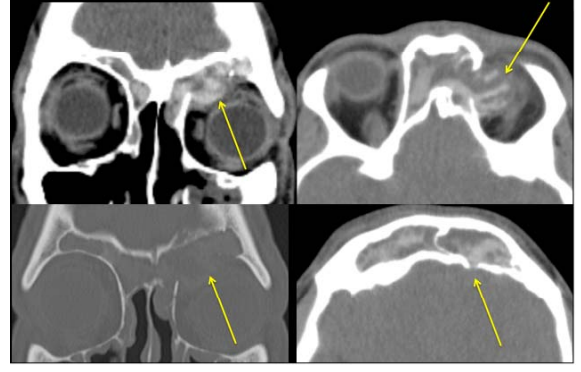




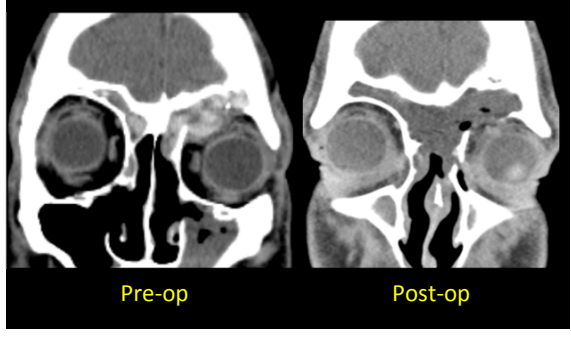
Chronic fungal sinusitis



Chronic fungal sinusitis



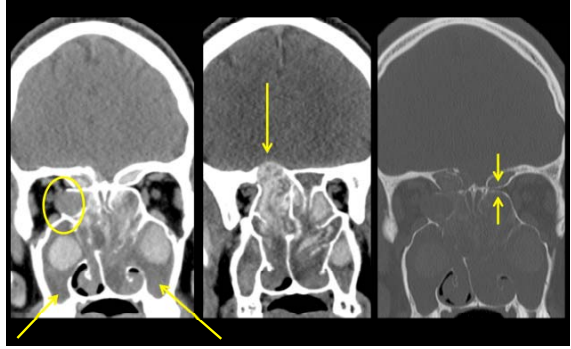
Chronic fungal sinusitis



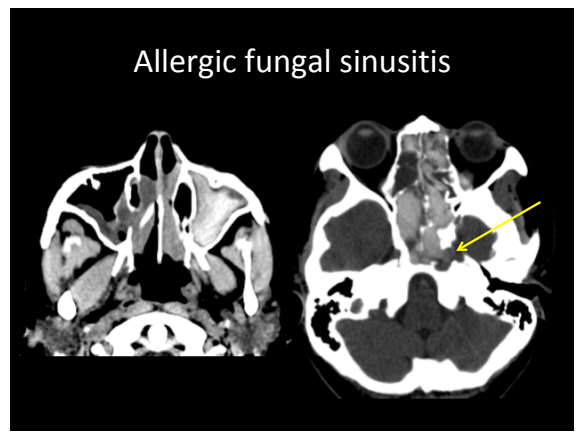
Allergic Fungal Sinusitis

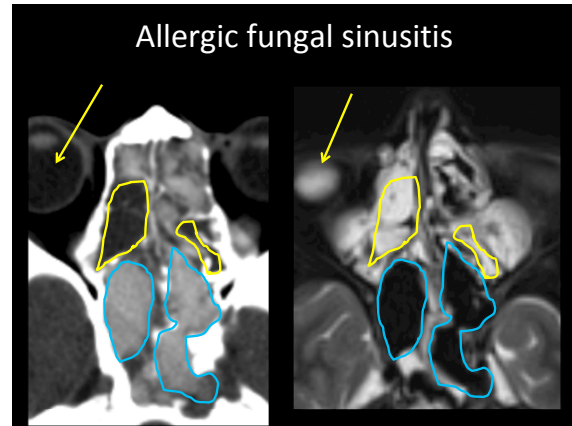


Allergic fungal sinusitis



Allergic fungal sinusitis





Summary

1. Present the different categories of fungal sinusitis
2. Case review of fungal sinusitis
3. Stress pertinent imaging findings
 - ✓ Non-enhancing, necrotic mucosa
 - ✓ Arterial thrombosis
 - ✓ Osseous erosion
 - ✓ Soft tissue enhancement followed by non-enhancement
 - ✓ Perineural spread of disease
 - ✓ Dense/T2 dark sinus secretions, debris
 - ✓ Mucosal edema

Thank you!!!

Reference:

Head and Neck imaging,
fifth ed., 2011 by
Peter Som & Hugh Curtin