

# The Rhinologist's Role in Pituitary Surgery

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**PEOPLE**

**MISSION**

**INNOVATION**



# Disclaimer



*Warrior Medics – Mission Ready – Patient Focused*

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# Lecture Overview



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- Workup
- Operative involvement
  - Opening
  - Preparation for Disasters
  - Closing
- Postop Care



# Endoscopic Pituitary Surgical Workup



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- What is pathology driving need for surgery?
  - Could the diagnosis be in question?
  - **Be a participant in the evaluation to assist the neurosurgeon, not just a proceduralist!**
- Obtain a CT early on in the process
  - Note and eliminate any sinusitis
  - Has the patient had previous surgery?
- Is this revision surgery?
  - Is a vascularized flap still available? What alternatives are available?
- Assess CT and MRI imaging adequacy to achieve a merged intraoperative scan
- CLOSE evaluation of CT to assess for approach issues

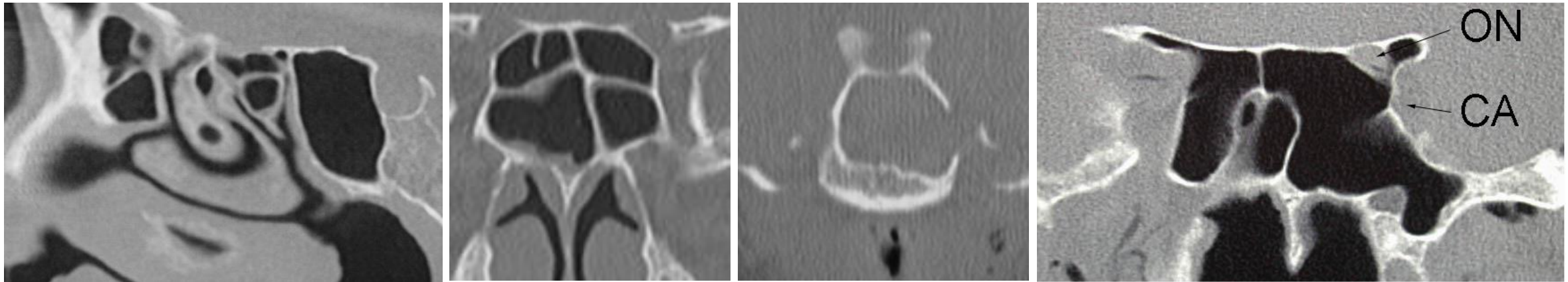


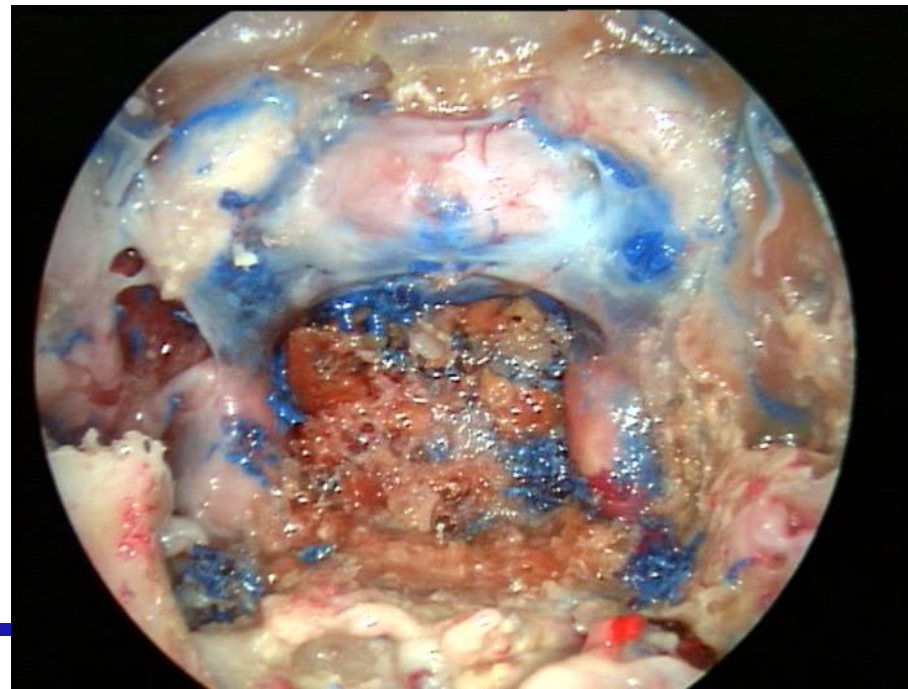
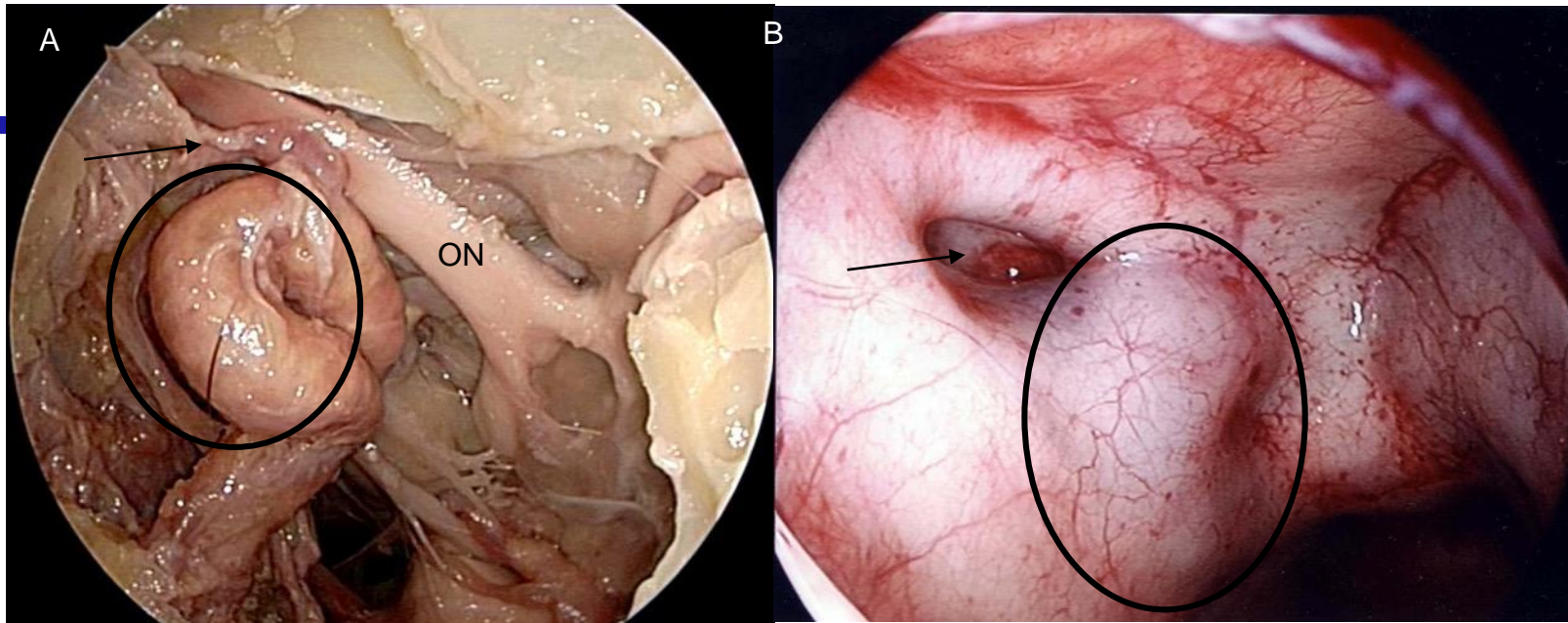
# Workup – CLOSE evaluation



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- Cribriform grade
- Lamina papyracea anomalies
- Optic nerve and Carotid artery dehiscences
- Sphenoid conformation and Skullbase projection
- Ethmoid artery location



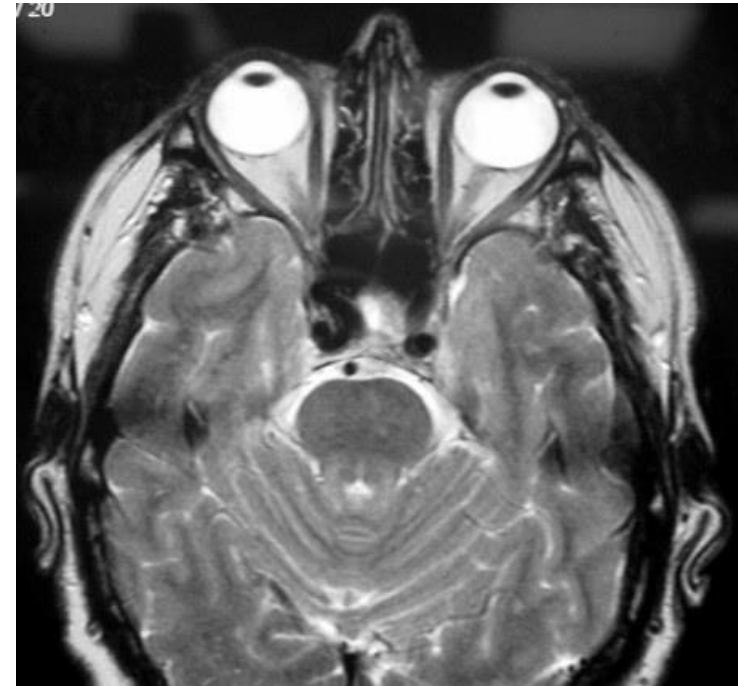
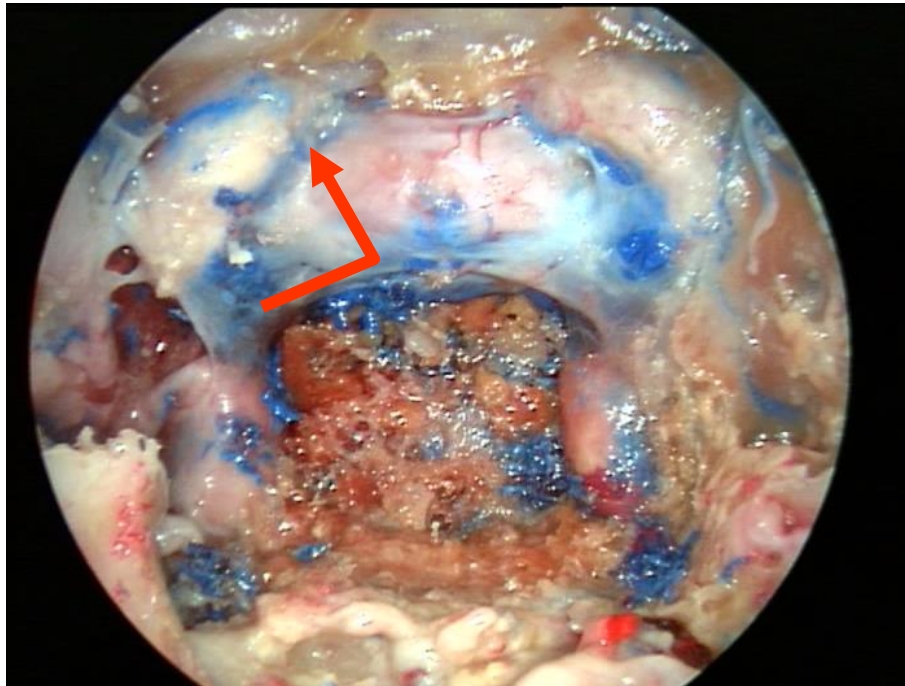




# Medially displaced carotid



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# Intraoperative - Opening



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- Your procedural job
  - Approach septoplasty
  - Lateralize middle and superior turbinates
  - Bilateral sphenoidotomy
  - Remove 2cm of high posterior septum (above posterior nasal artery)
  - Remove sphenoid rostrum with rongeur and drill (straight suction need to be able to lie below sella turcica when drilling is complete)
- Take care of your neurosurgeon!
  - Pay attention to their ergonomics and comfort
  - Maintain excellent surgical fields and optics
  - Attempt to provide entire approach in 20 minutes or less
    - Establish efficiency value to the neurosurgeon or they may not ask you back





# Intraoperative Disasters



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- Are you prepared for a massive carotid hemorrhage?
  - If not, should you be doing this surgery?
- Advice - Take a course in massive vascular injuries during skullbase surgery
- Quick overview:
  - Initiate a transfusion protocol
  - Pack off sphenoid
  - Two large bore suctions – hover technique
  - Crushed muscle plug – tongue is easiest
  - Interventional radiology



# Intraoperative - Closing



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- Manage any CSF leak
  - Thrombin on gelfoam effective for stopping cavernous sinus bleeding
  - Free fat vs Imitation dura products are good as underlay
  - Vascularized grafts very effective but usually not necessary
  - For pressure dressings, always place a piece of gel foam last to be a sacrificial barrier to the actual mucosal repair layer that will be ripped off when pressure dressing is removed
  - Finally, reverse all obstruction caused by surgical lateralization (medialize turbinates)



# Septal Flap 101



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# Postop



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- ICU observation
  - Assist with CSF leak management
  - Watch out for excessive steroids that can prevent sealing of dura
  - Cover pressure packing with antibiotics
- Packing removal
- Involvement in postop highly variable
  - Depends heavily on neurosurgeon
  - May have to play primary role managing NICU and patient follow up





# Thanks!



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- Phil Chen MD for the invite to speak at such a great conference!
- Long list of Wormald rhinology fellows that share a spirit of collegiality and friendship

