

Inverted papilloma – what NOT to miss

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Disclosures

- None

Learner Objectives

- After this presentation you should:
 - 1) Keep IP in the differential diagnosis for all unilateral/ isolated sinus opacification
 - 2) Appreciate the role of imaging in development of surgical plan for sinonasal IP
 - 3) Understand the goal of surgery for IP
 - 4) Know principles for definitive surgical resection of IP

Inverted Papilloma

- Most common sinonasal tumor
- Locally aggressive
- Multicentric
- Potential for malignant transformation 5-15%
- Propensity for recurrence high (40% in some series)

Inverted Papilloma

- Often very straightforward endonasal resection but can be very challenging depending on nature of tumor attachment and extension.
 - At times extended endonasal approaches or external approaches need to be considered.
- High recurrence rate supports role of complete surgical resection
- Role for “debulking/serial debridement” in some patients???

Preoperative evaluation

- Inverted papillomas present as unilateral nasal mass (almost always)
- Fairly characteristic gross appearance
- At times can be found in cases of sinonasal polyposis/inflammation
 - Consider sending right and left tissue to pathology separately in all cases of bilateral ESS

Keys to complete surgical resection

Preop:

- Imaging to map out tumor extension and likely attachment site(s)

Intraop:

- Identification of attachment site(s)
- Wide exposure
- Remove wide margin of grossly (endoscopically) “normal” mucosa
- Remove layer beyond attachment site(s)
- Image guidance helpful at skull base/orbit

What not to miss:

- Diagnosis
- Role of imaging in developing a surgical plan
- Opportunity to engage colleagues or ask for help
- Offering your patient a definitive one-time operation
- Chance to identify a recurrence early

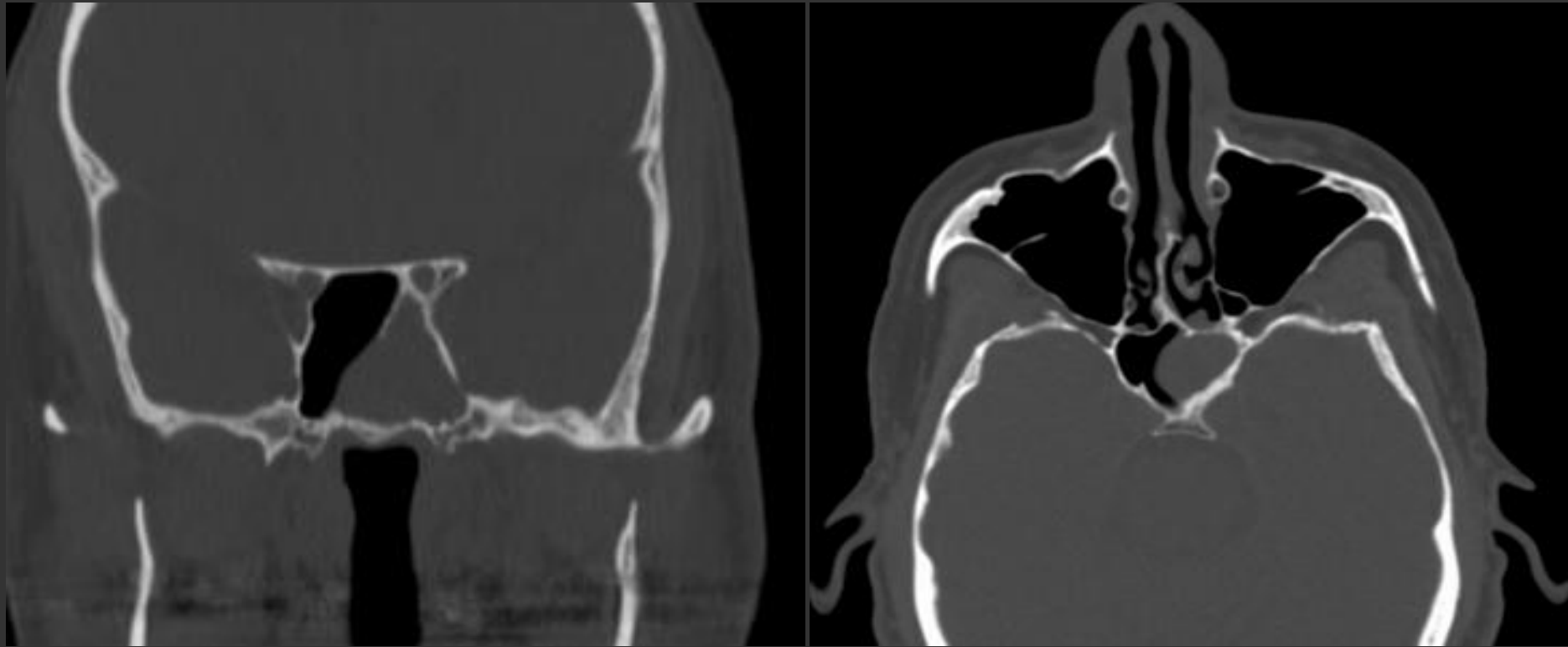
Preoperative evaluation

- Biopsy never wrong after appropriate imaging but is it always necessary??
- Imaging first
 - Start with CT
 - Depending upon extent/location MRI

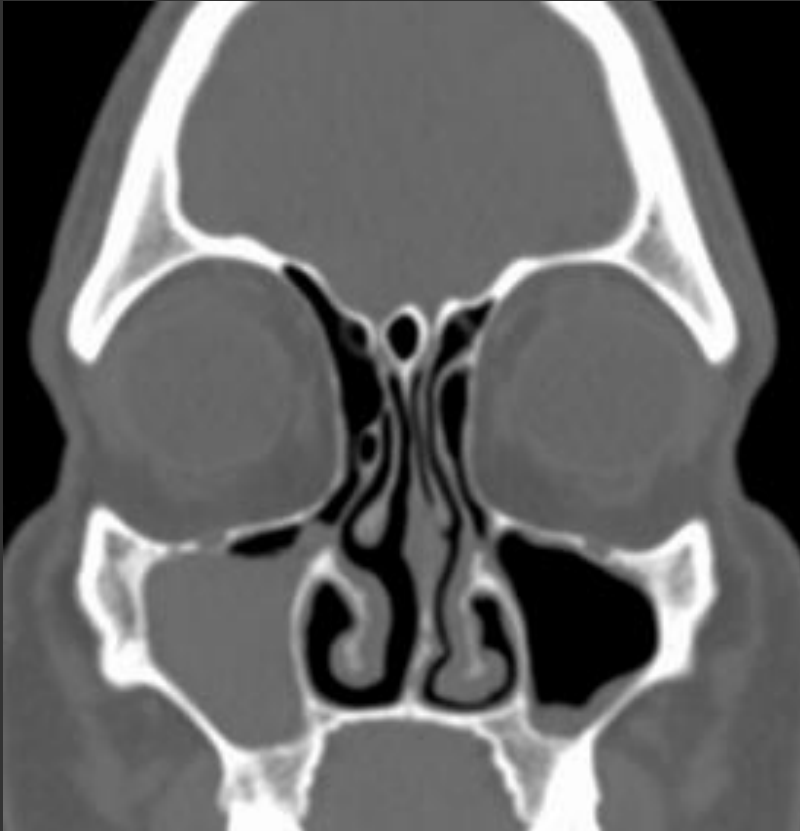
Diagnosis

- Isolated sinus disease
 - Consider IP in the differential of imaging demonstrating isolated sphenoid, maxillary, frontal sinus opacification.
- Unilateral sinus disease
 - “polyps”
 - Broad differential diagnosis of which IP is one possibility

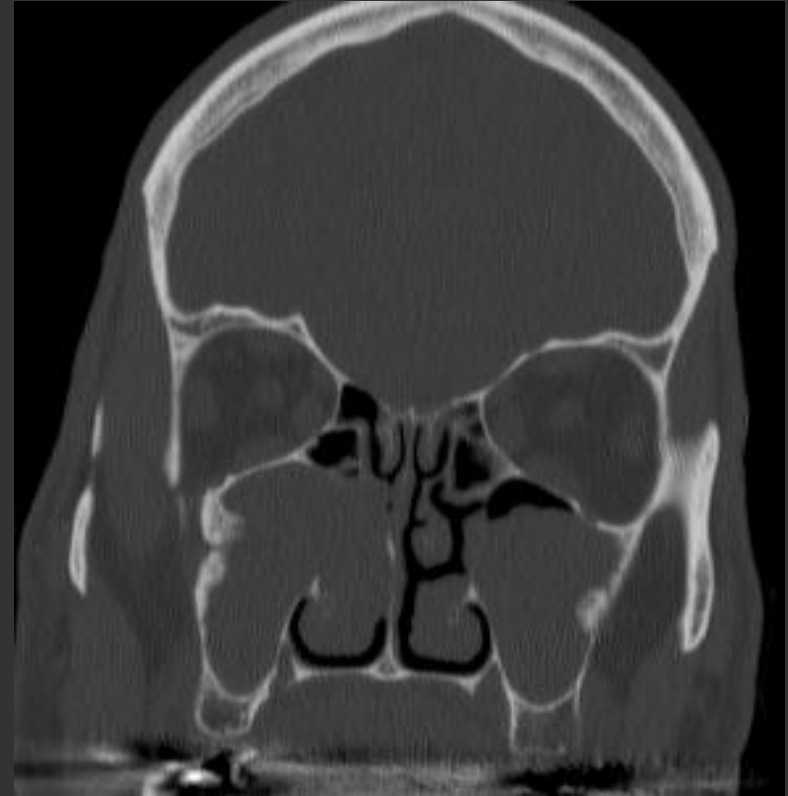
Diagnosis



Diagnosis



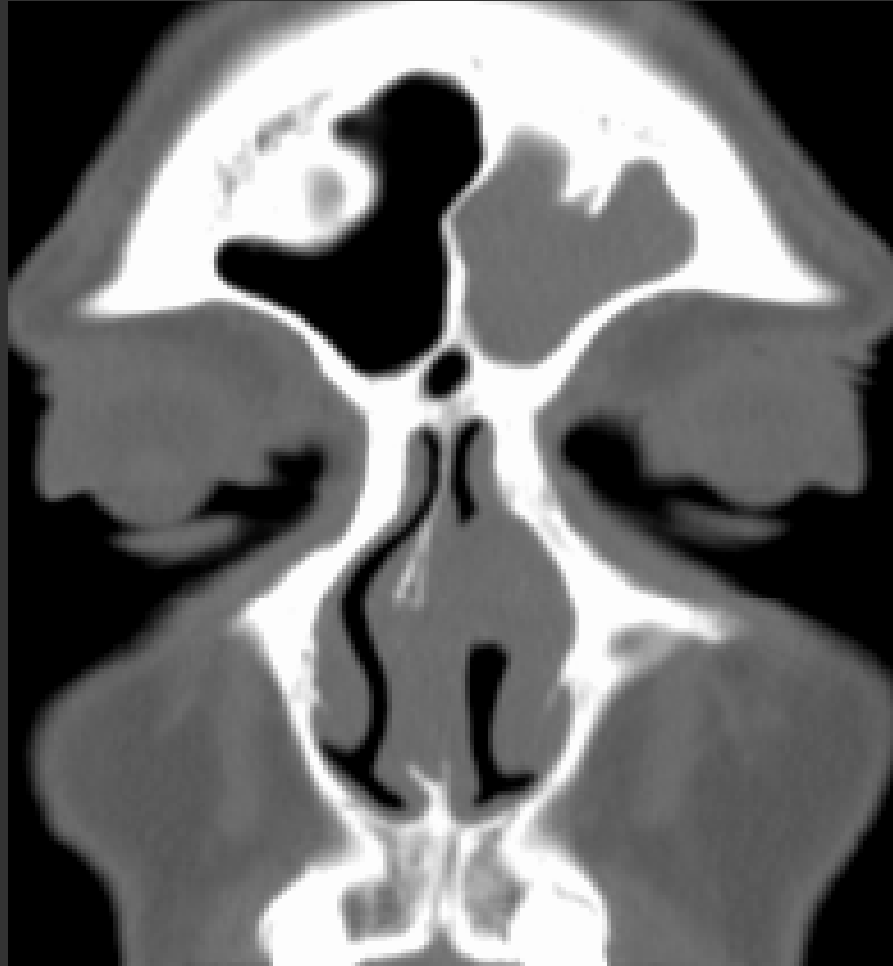
Diagnosis



Diagnosis



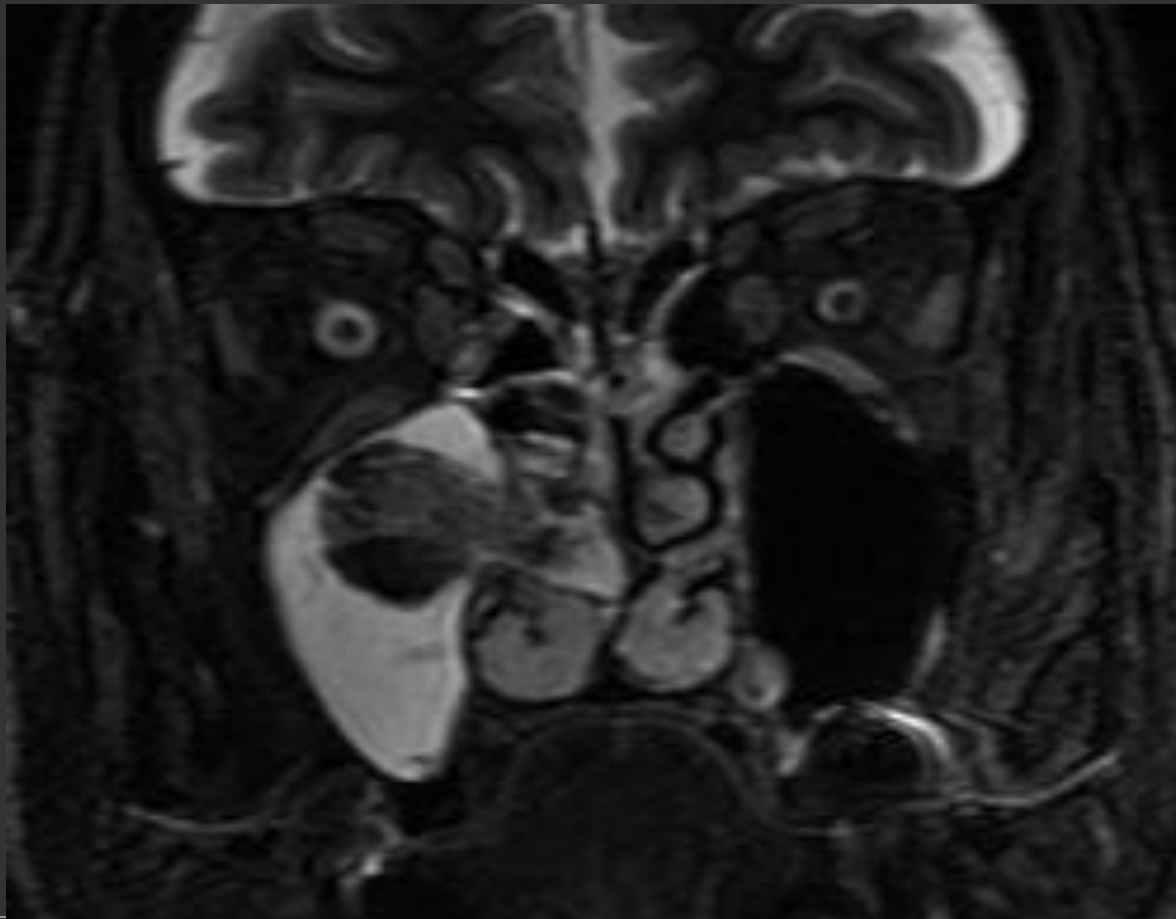
Diagnosis



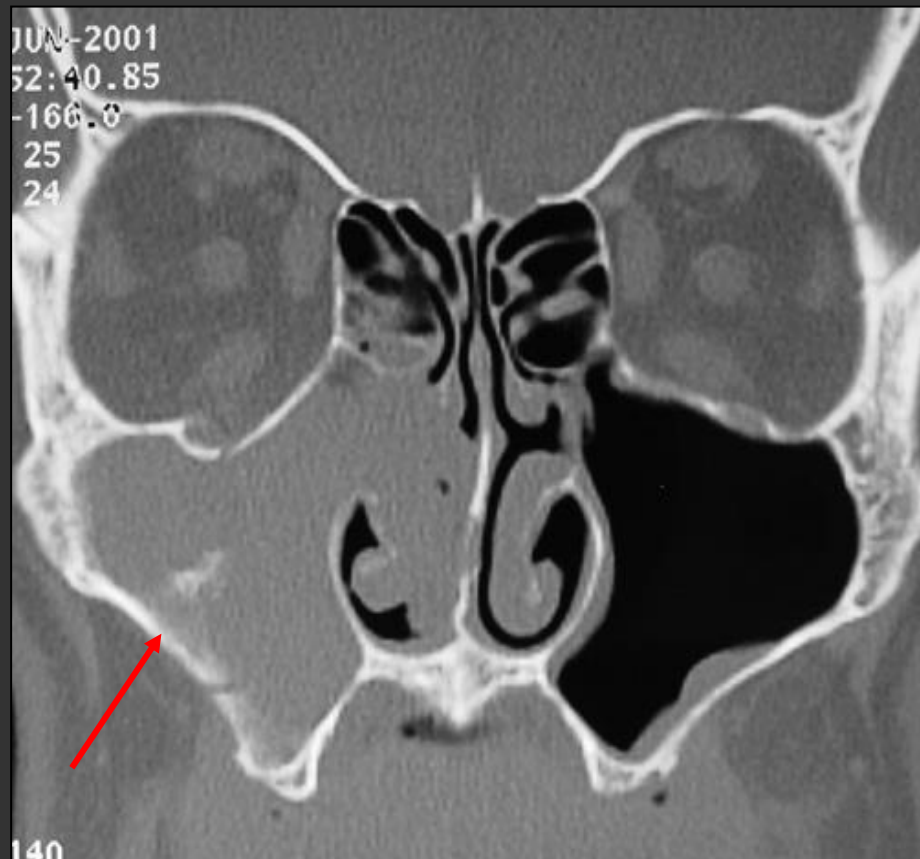
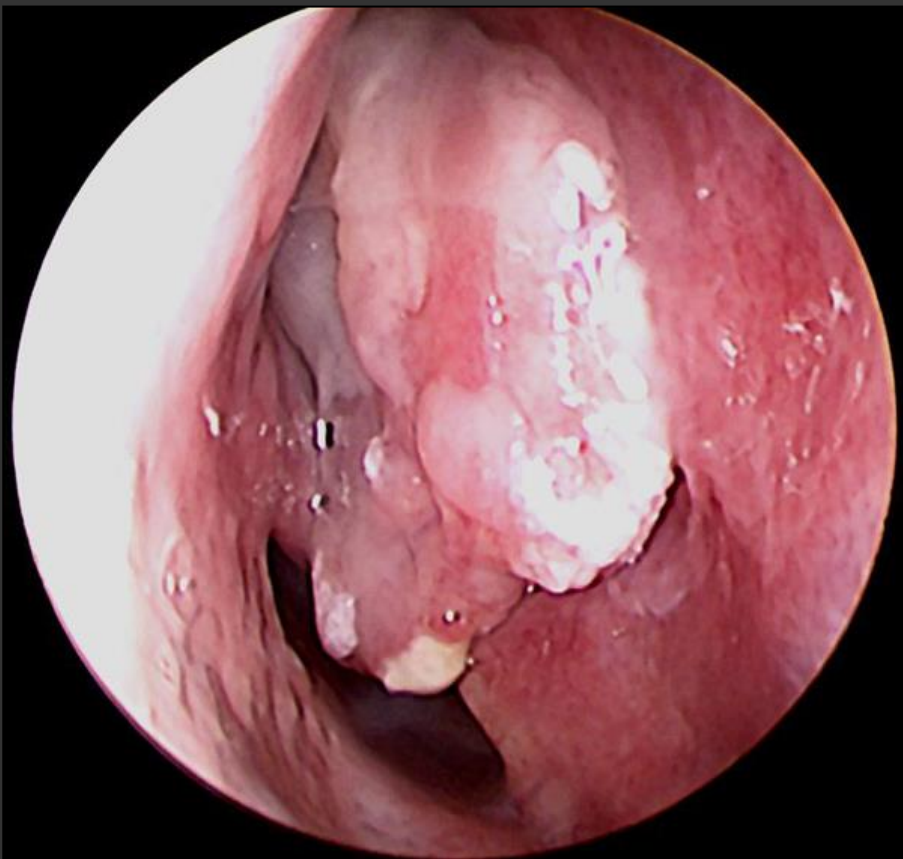
Surgical Plan: Role of Imaging



Surgical Planning: Role of Imaging Attachment site



Surgical Plan: Role of Imaging Attachment site



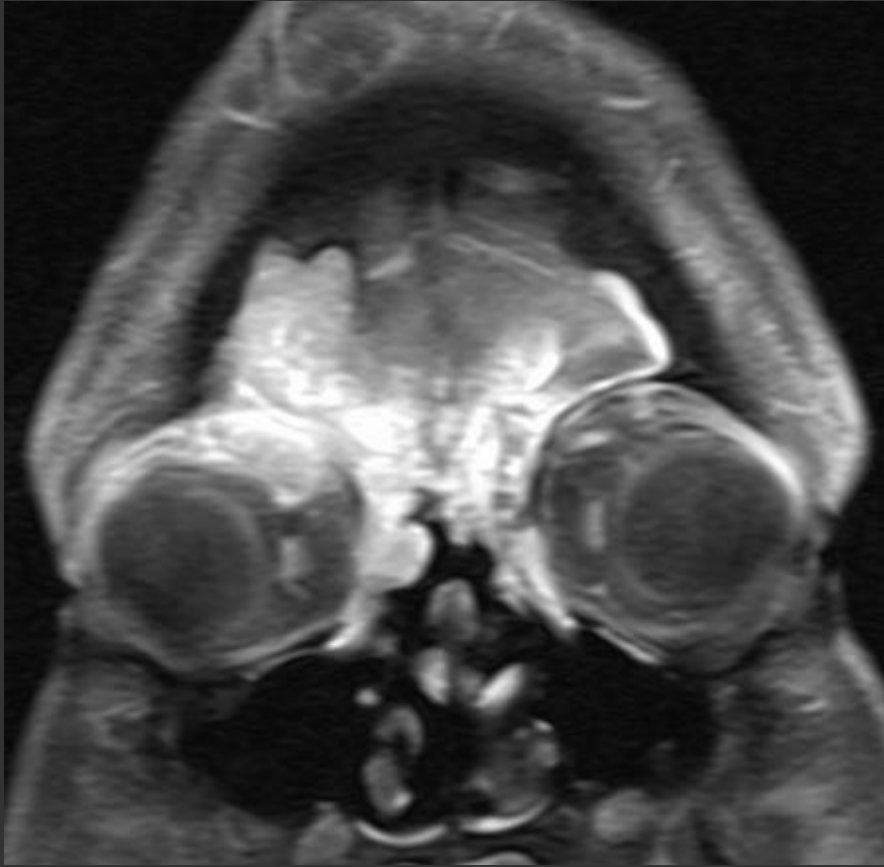
Surgical Plan: Role of imaging Tumor Mapping



Surgical Planning: Role of Imaging Tumor Mapping

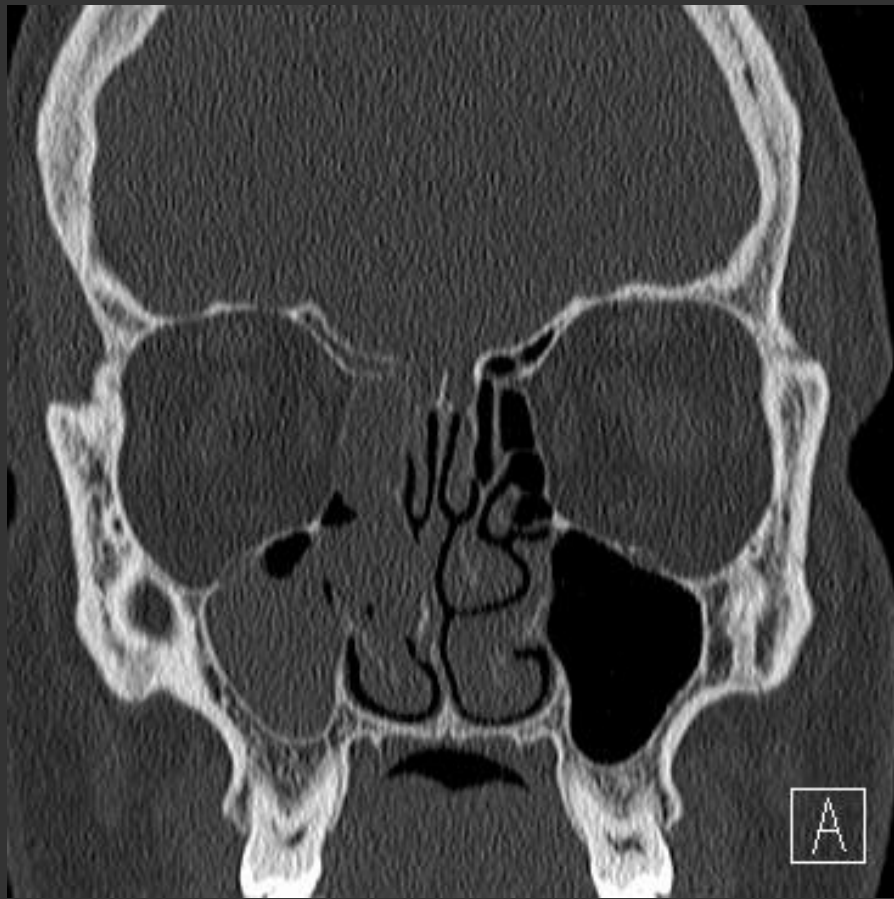


Surgical Planning: Role of Imaging Tumor Mapping



- Tumor mapping
- Sometimes you need to engage colleagues:

Surgical Planning: Role of Imaging



Surveillance

- IP surveillance recommendations not clear
 - After post-op period every 2-3 months 1st year
 - 4-6 months 2nd year
 - Annually thereafter...how long??

Summary

- Do
 - Consider IP in the differential diagnosis of unilateral nasal disease/"polyp" and isolated sinus opacification
 - Use imaging to develop a surgical plan that offers your patient the best chance of a complete resection/cure
 - Engage colleagues for management when tumor involves orbit or skull base
 - Don't be afraid to refer patient on if you aren't comfortable with tumor location/extension

Summary

- Do not
 - Miss the diagnosis before surgery if possible
 - Balloon dilate isolated opacified sinuses without considering differential diagnosis
 - Do not have patients come back “as needed” for surveillance
 - Consider debulking/serially resecting a treatment option for the majority of patients
 - Potential for malignant degeneration
 - it only gets more difficult
 - costs to patient/healthcare system