Paradoxical Middle Turbinates

- Usually do not have to be addressed
- If do need to be addressed
  - Resect only the paradoxical segment
Incomplete uncinectomy
Avoid Mucosal Stripping

Enter maxillary sinus with small instruments to avoid stripping mucosa off of posterior wall of sinus
Agger Nasi

- Endoscopically appears as bulge anterior to attachment of middle turbinate
- The larger the cell the narrower the attachment angle of the middle turbinate
Sphenoidotomy
Identifying Superior Turbinate

- Consistent anatomy
  - Superior and posterior to middle turbinate
  - Common attachment to skull base with MT

- Is the most reliable landmark for the natural ostium of the sphenoid sinus
**Natural Ostium**

- 2-3 mm diameter
- 1-1.5 cm above floor of sinus
- @ 7 cm at 30 degree angle from anterior nasal spine
Trans-nasal Sphenoidotomy
Sphenoethmoid Cell

- posterior ethmoid cell located within sphenoid bone
- located superior and/or lateral to sphenoid sinus
- can be mistaken for sphenoid sinus
Sphenoethmoid Cell
Trans-Ethmoid Sphenoidotomy
(Natural Ostium)

Remove inferior part of superior turbinate to identify natural ostium
Post-operative care

Prevent synechiae and middle turbinate lateralization
Conclusions

- Obtain adequate access
- Tailor degree of surgery to extent of disease
- Mucosal preservation
- Minimally traumatic technique
  - Appropriate instrumentation
- Thorough postoperative care
  - Debridement, lyse synecchiae