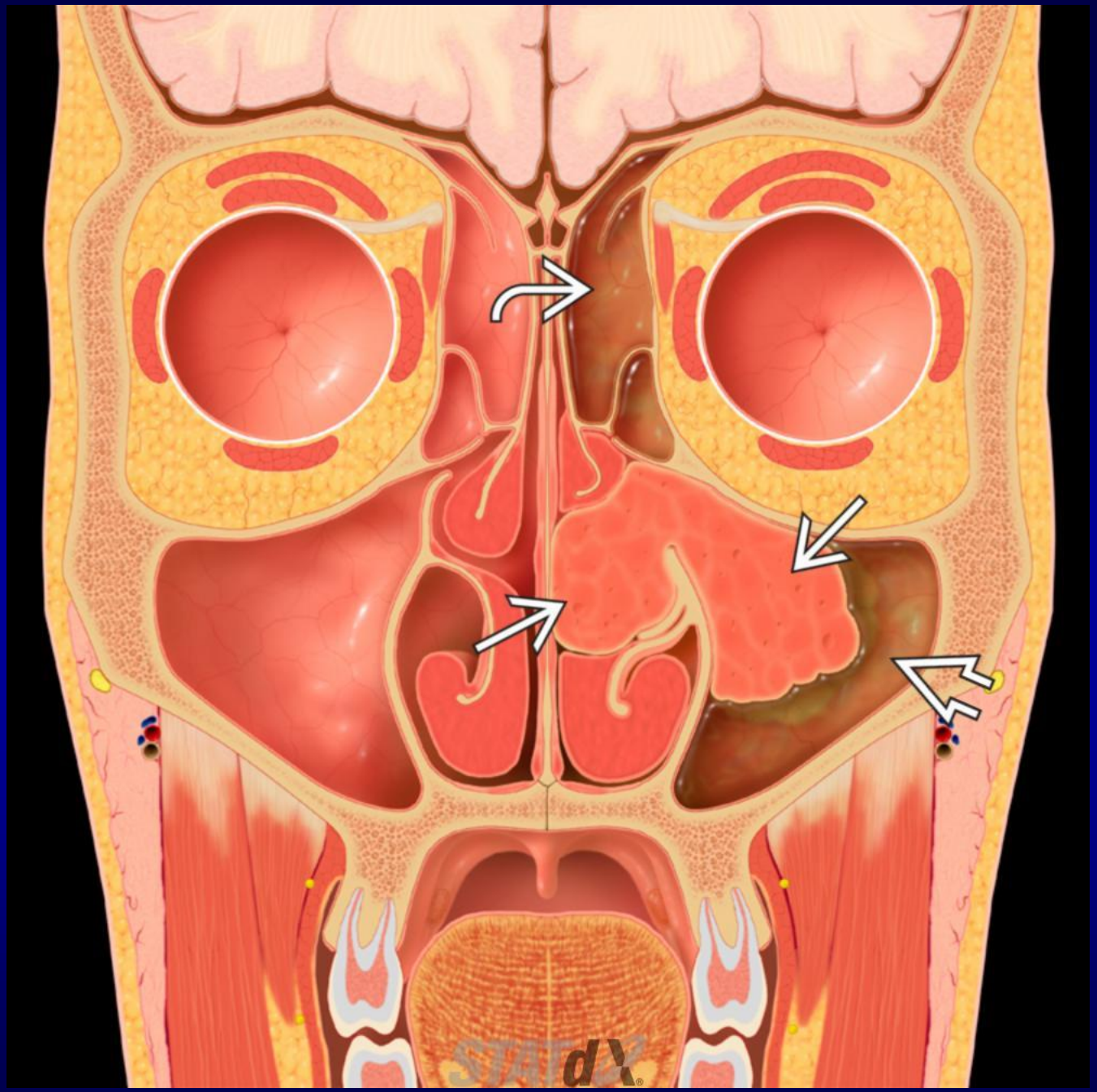
Inverted Papilloma

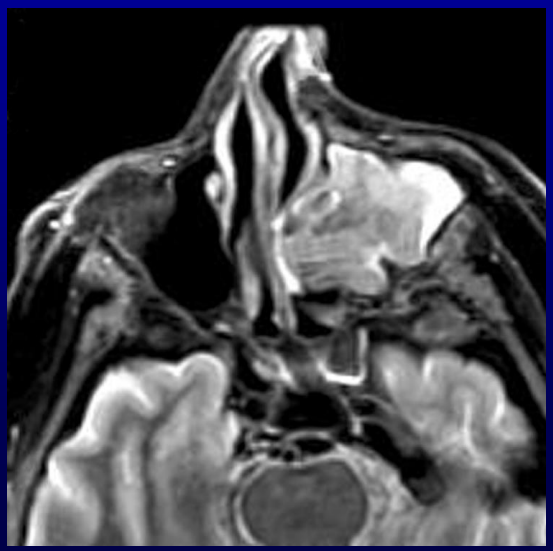
- Typically 30-60 years
- Can occur in children & adolescents
- M > F = 4-5:1
- Benign but locally aggressive tumor
- **10%** either degenerate into or **coexist with SCCa**
  - SCCa may be either synchronous (7%) or metachronous (4%)
  - PET cannot be reliably used to distinguish benign inverted papilloma & SCCa
- Uncommonly originates in maxillary antrum, sphenoid, frontal, or ethmoid sinuses



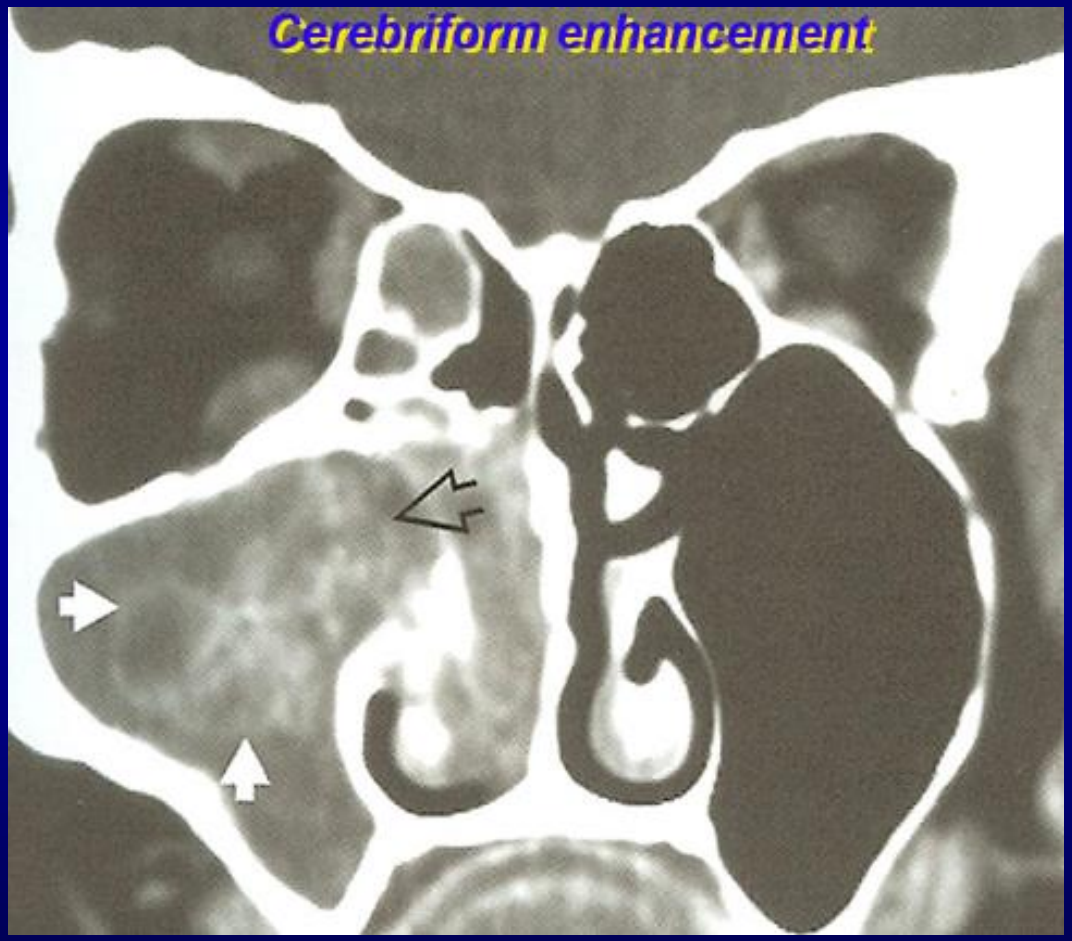
Coronal graphic shows an inverted papilloma (IP) (white solid arrow) originating near the middle meatus & extending into the left maxillary sinus. Blocked secretions are noted in the ethmoid (white curved arrow) & maxillary (white open arrow) sinuses.

Benign sinus lesions
Inverted Papilloma

- Epithelial tumor of mucosa
- Endophytic growth pattern
- Benign appearing mass in nasal cavity/middle meatus
- Associated with SCCa 10-20% of time
- Bone remodelling without destruction
- On MR
  - Enhancement
  - Convoluted cerebriform pattern



Inverted Papilloma



Coronal T2WI FS MR shows characteristic features of an IP that involves the right maxillary sinus & nasal cavity. The lesion has a convoluted, cerebriform architecture. Note the inferior displacement of the inferior turbinate (white solid arrow).

Coronal T2WI FS MR in the same patient shows that the papilloma involves the ethmoid sinuses (white solid arrow) in addition to the frontal sinus. Trapped secretions (white open arrow) along the margin of frontal tumor component are proteinaceous with T1 shortening.

DDX:

- Sinonasal Solitary Polyps
  - Antrochoanal polyp: Dumbbell-shaped lesion involving maxillary antrum & ipsilateral nasal cavity
  - Peripheral, not central, enhancing lesion with mucus or fluid density (CT) or intensity (MR)
- Sinonasal SCCa
  - In most cases, destroys rather than remodels bones
  - Typically originates within maxillary antrum > nasal cavity
- Sinonasal Polyposis
  - Polypoid lesions in nasal cavity & paranasal sinuses
  - Bone remodeling & sinus expansion
- Juvenile Angiofibroma
  - Adolescent males with nose bleeds
  - Mass centered on margin of sphenopalatine foramen in posterior nasal cavity
  - Intense enhancement of this highly vascular mass is typical
- Esthesioneuroblastoma
  - Typically centered in superior nasal cavity near cribriform plate
  - Intense enhancement; more likely to invade orbit/anterior skull base