Inverted Papilloma

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Synonyms

- Schneidarian tumor
- Ringertz tumors
- Epithelial papilloma
- Transitional cell papilloma
- Squamous cell papilloma

Epidemiology

- 4% of primary nasal tumors
- 1 - 1.5 cases per 100,000 per year
- M : F = 4 : 1
- White most at risk
- Rare in children and young adults

Etiology

- Allergies
- Chronic sinusitis
- Airborne pollutants
- Viral infection → HPV 6 & 11

Clinical behavior

- Benign tumor
- Propensity to be associated with malignancy (10 % are malignant)
- Site of origin → lateral nasal wall
- Almost always unilateral (10 % are bilateral)
- Tendency to recur
- Destructive capacity to surrounding structures

History

- Unilateral nasal obstruction
- Epistaxis
- Nasal discharge
- Epiphora
- Facial pain

Examination

- Unilateral polypoidal mass

- Irregular, friable appearance
- Bleed when touched
- Reddish gray
- May completely fill the nasal cavity, extending from the vestibule to the nasopharynx
- Nasal septum is often bowed to the contralateral side
- Proptosis and facial swelling sometimes develop secondary to expansion

Investigations

- CECT
  - Bone destruction erosion
  - Extent of lesion
- MRI
  - Superior in distinguishing papillomas from inflammation
  - Heterogeneous appearance on MRI
  - On T1-weighted images → hyperintense
  - T2-weighted images →intermediate signal intensity
- Biopsy

Histology

- Endophytic or inverted growth pattern → growing into stroma
- Proliferation of covering epithelium and extensive finger like extensions into underlying stroma of the epithelium
- Thickened squamous epithelium admixed with mucocytes and intraepithelial mucous cysts
- Different portions within tumor can have malignancy , hence need to send specimen parts accurately labeled (synchronous)
- Residual tumor can develop malignancy → metachronous

Staging → Krouse

1. Tumor in nasal cavity
2. In ethmoid or medial/sup portion of max sinus
3. In frontal/ sphenoid or lat/inf max sinus
4. Extension beyond nose & PNS

Surgical Therapy

- Lateral rhinotomy + medial maxillectomy
- Alternative approach → Midfacial degloving
- Endoscopic medial maxillectomy

Follow-up

- Recurrence → quoted in various literature upto 70%
- Most recurrences occur within the first 2 years of treatment
- Nasal endoscopy is essential for follow-up and monitoring for disease recurrence