

Benign Lesions of the Vocal Folds

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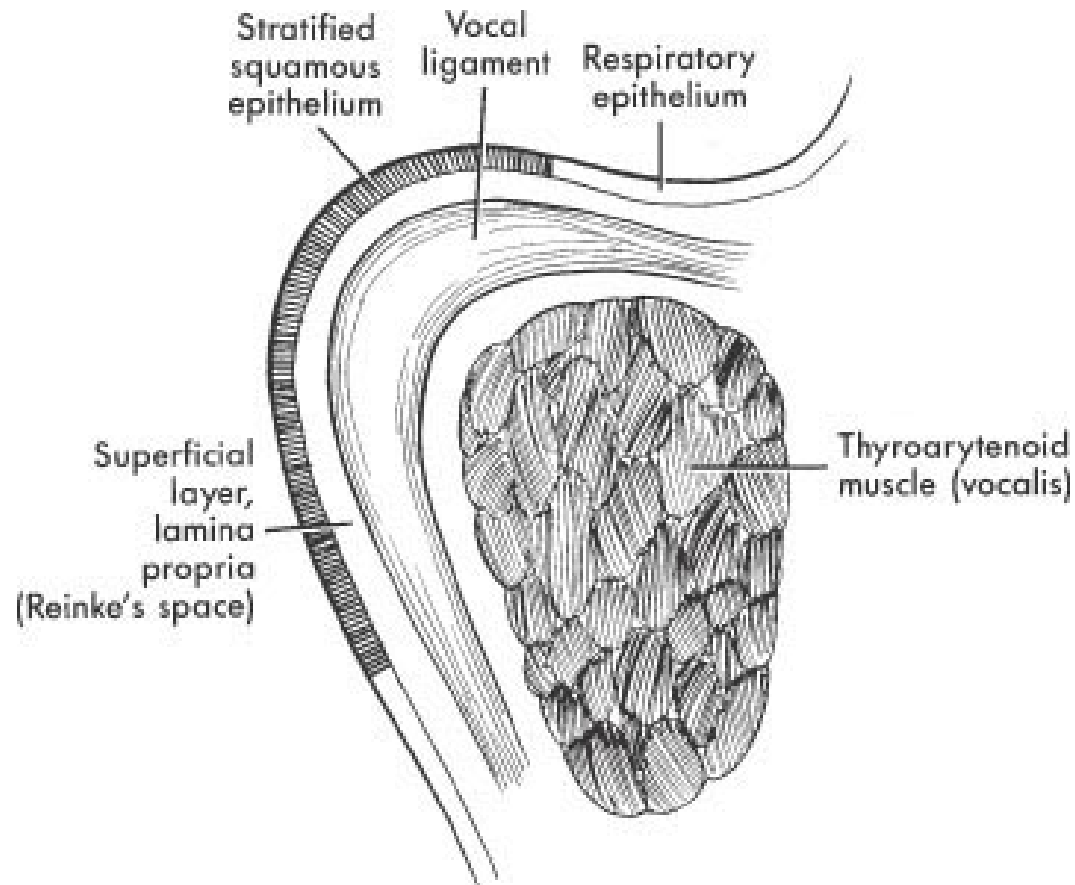
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Learning Objectives

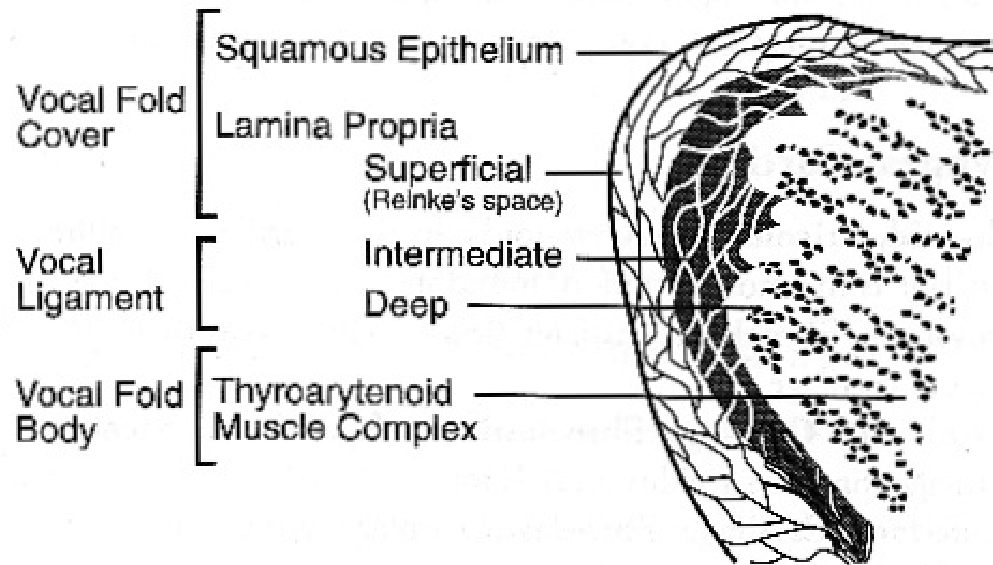
- 1) Review the presentation, pathophysiology, and stroboscopic exams of benign vocal fold lesions.
- 2) Participants will review case presentations of various vocal fold lesions.

Normal Anatomy



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Histological Layers of Vocal Fold



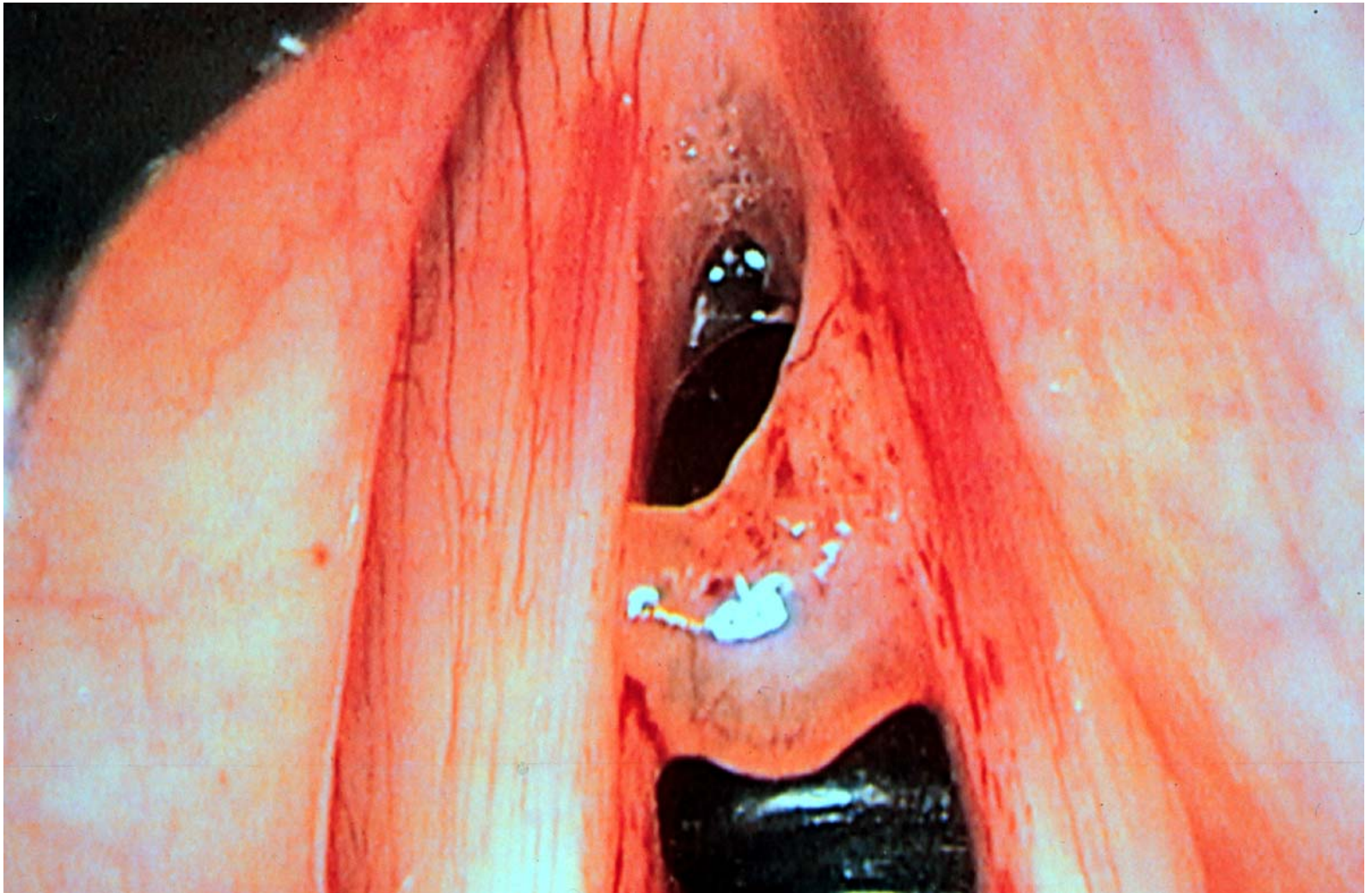
Stratification Methods

- Morphology: Location within the vocal fold structure
- Stroboscopy: Assessment of the mucosal wave activity associated with the lesion(s)

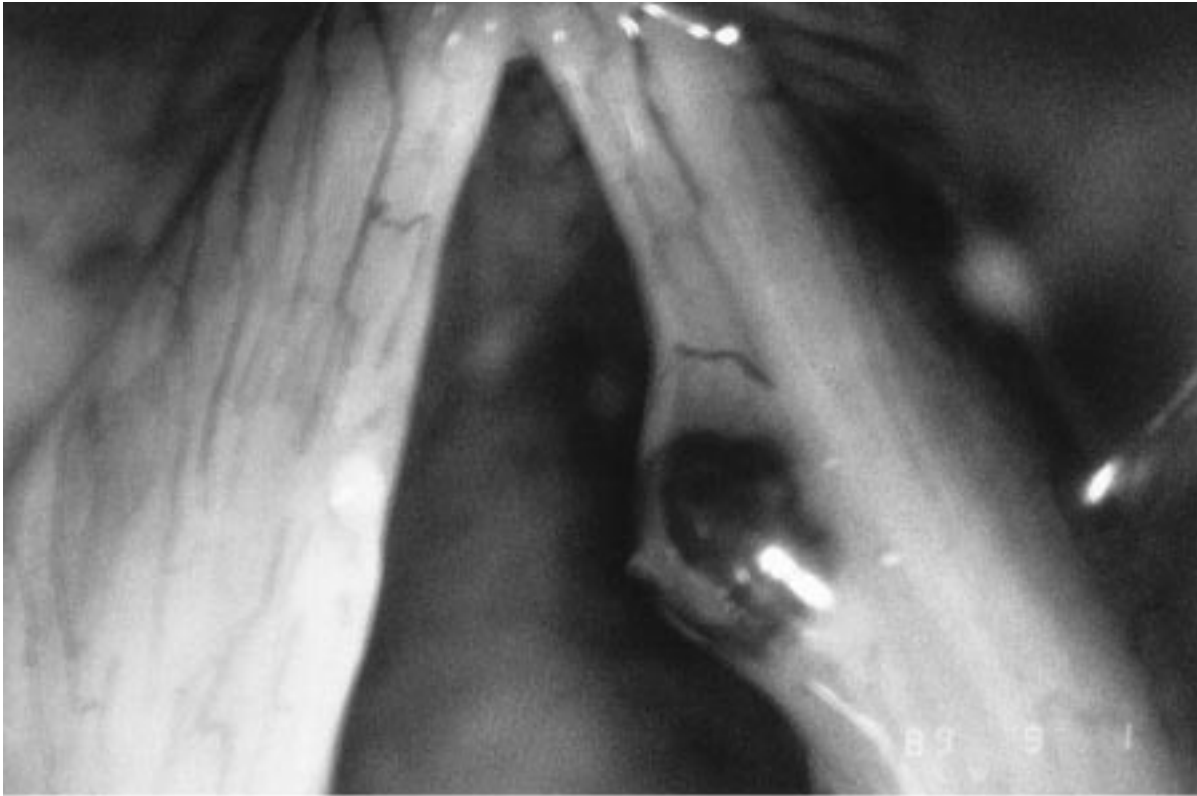
Vocal Fold Polyp

- Unilateral or Bilateral
- Presentation: hoarseness, increased effort
- Exam: superior or inferior mucosal edge
 - Translucent or Hemorrhagic
- Risk Factors: Smoking, Talkativeness
- Pathophysiology: edema, vascular congestion, venous stasis may cause polypoid changes.

Unilateral Mucooid Polyp



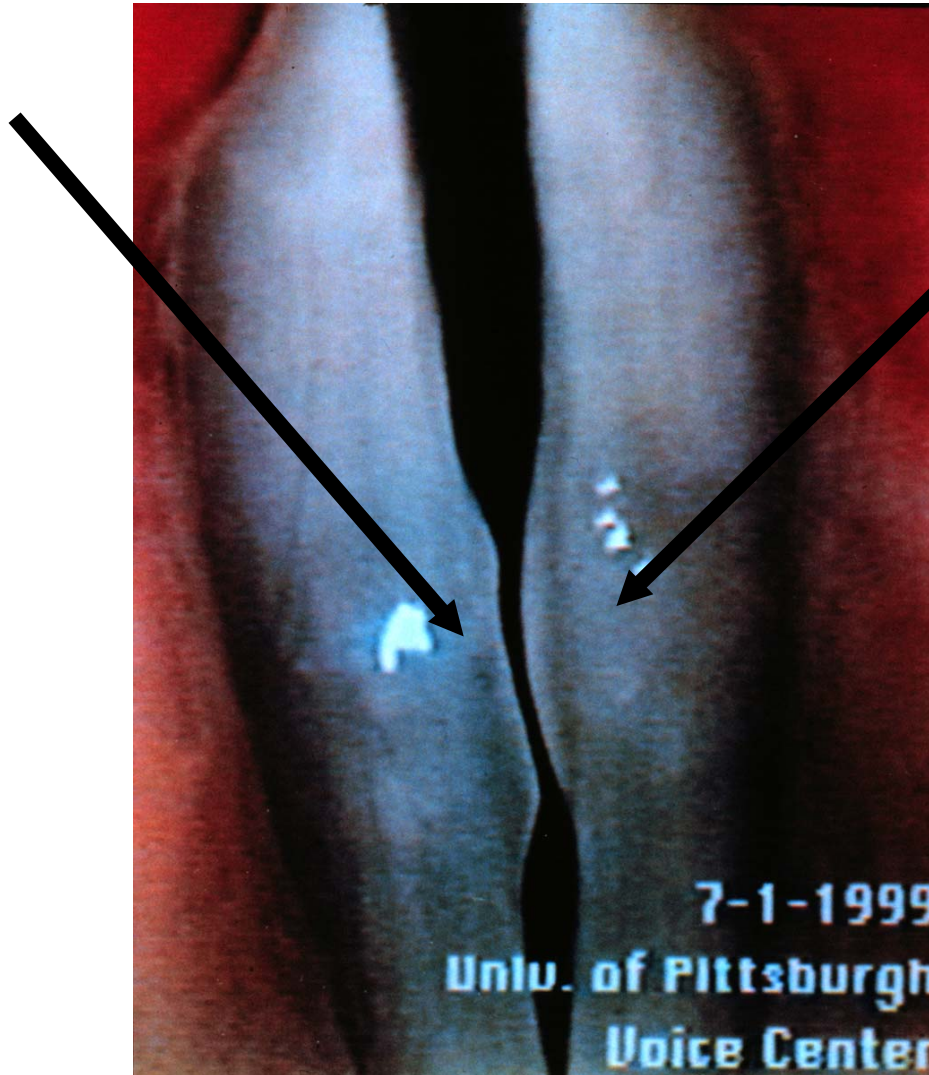
Hemorrhagic Polyp



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Polyp with Reactive Lesion

**Reactive
Lesion**



**Vocal
Fold
Polyp**

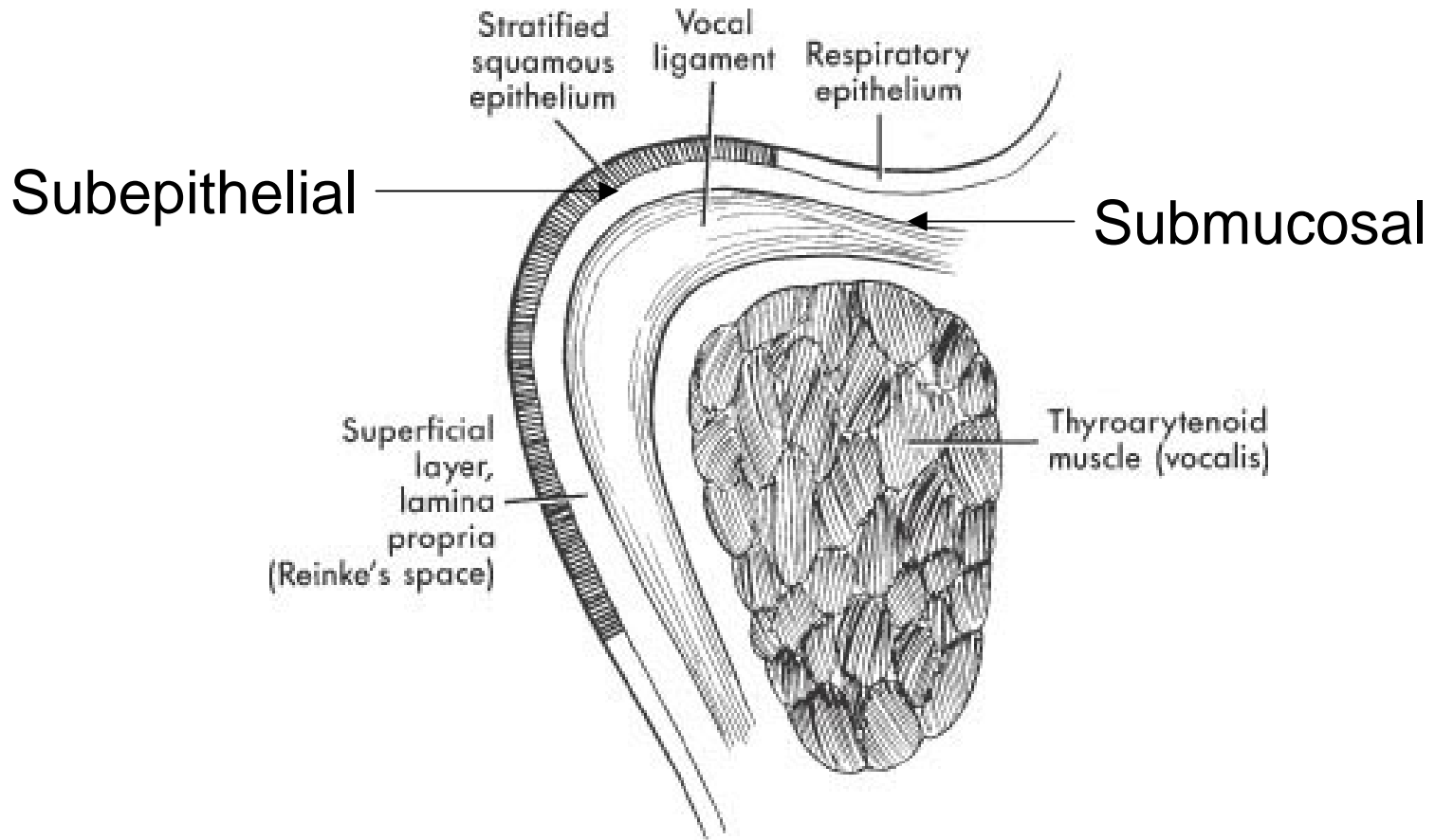
Vocal Fold Polyp Management

- Strobe: Normal or Minimal Pathology
- Voice Therapy: Voice reeducation
- Stop smoking
- Surgical therapy
 - reduction w/mucosal sparing
 - Avoid vocal fold stripping

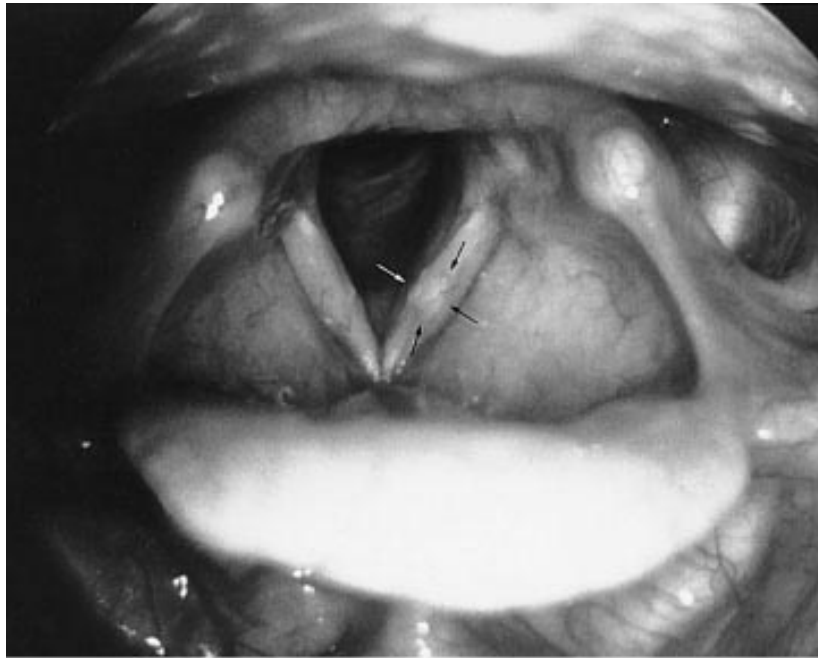
Vocal Fold Cysts

- Unilateral or Bilateral
- Mucus retention cysts & epidermoid cysts
- Presentation
 - Diplophonia, hoarseness, pain, fatigue
- Pathophysiology
 - Mucous gland duct plugged - Mucus retention
 - Keratin accumulation - Epidermoid

Subepithelial or Submucosal



Epidermoid Inclusion Cyst



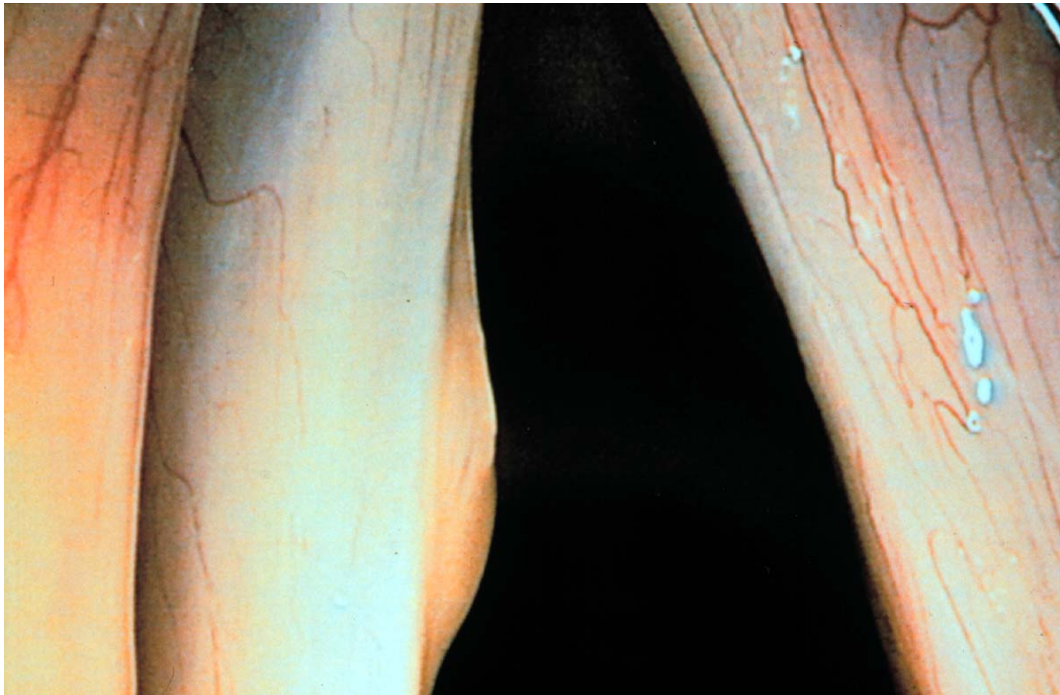
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Mucus Retention Cyst



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Management

1) Stroboscopy Essential

- Significant reduction in mucosal wave when lesion is submucosal
- Minimally diminished mucosal wave when subepithelial

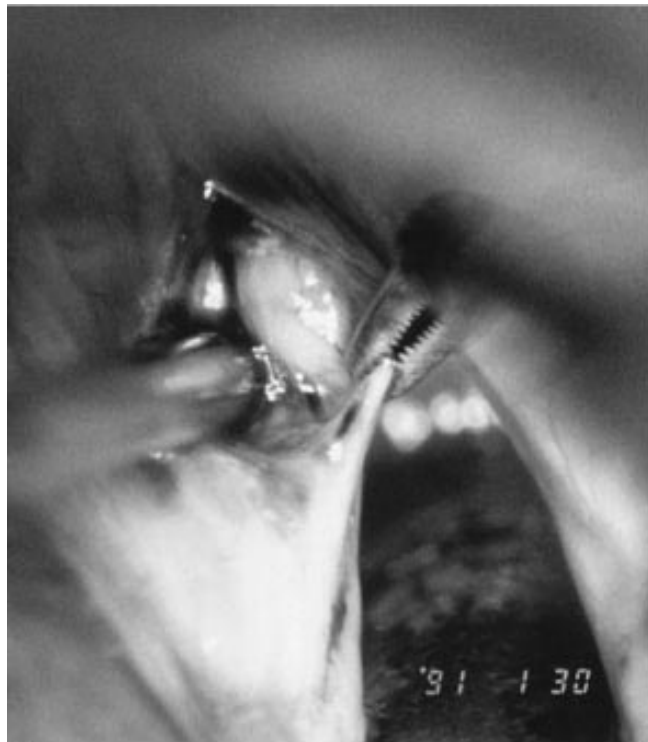
2) Direct Laryngoscopy

- Direct Visualization
- Palpation
- Rule out neoplasm

Treatment

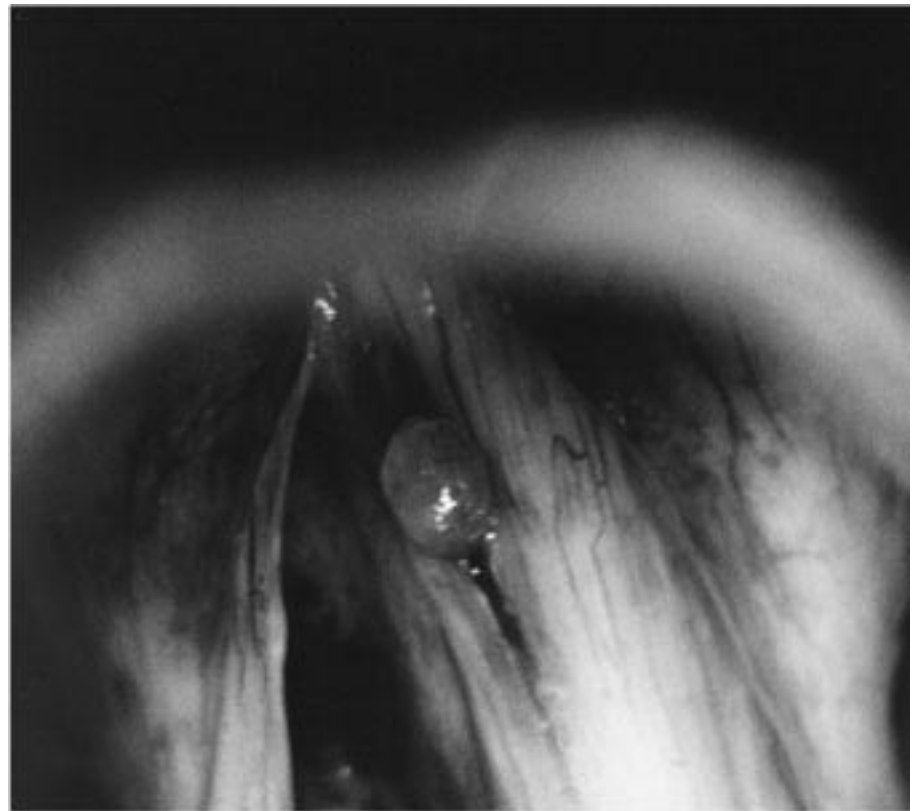
- Medical: antireflux, hydration
- Voice Therapy - minimally helpful
- Surgery: cordotomy
- Follow-up voice therapy is effective

Cordotomy



B

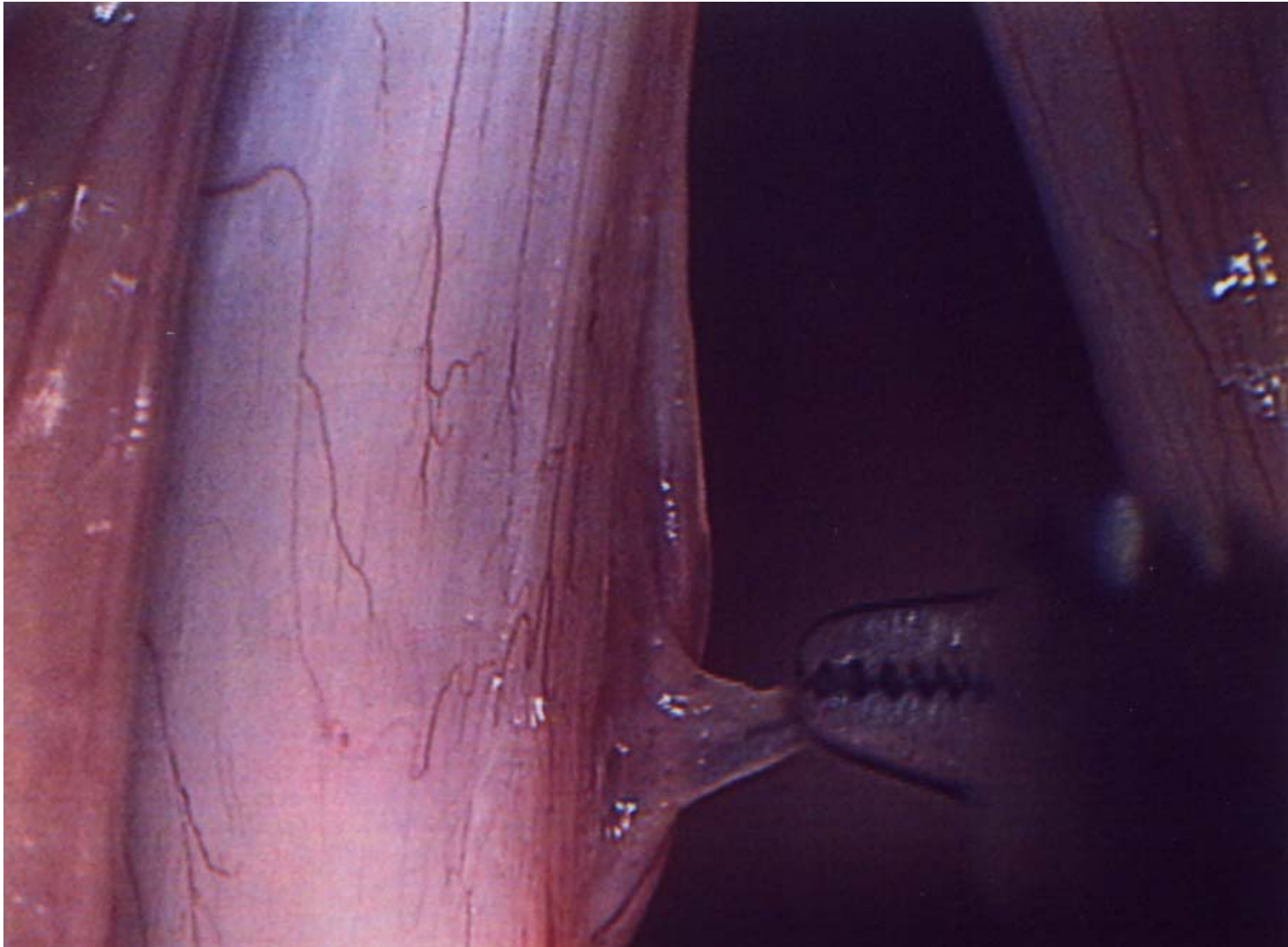
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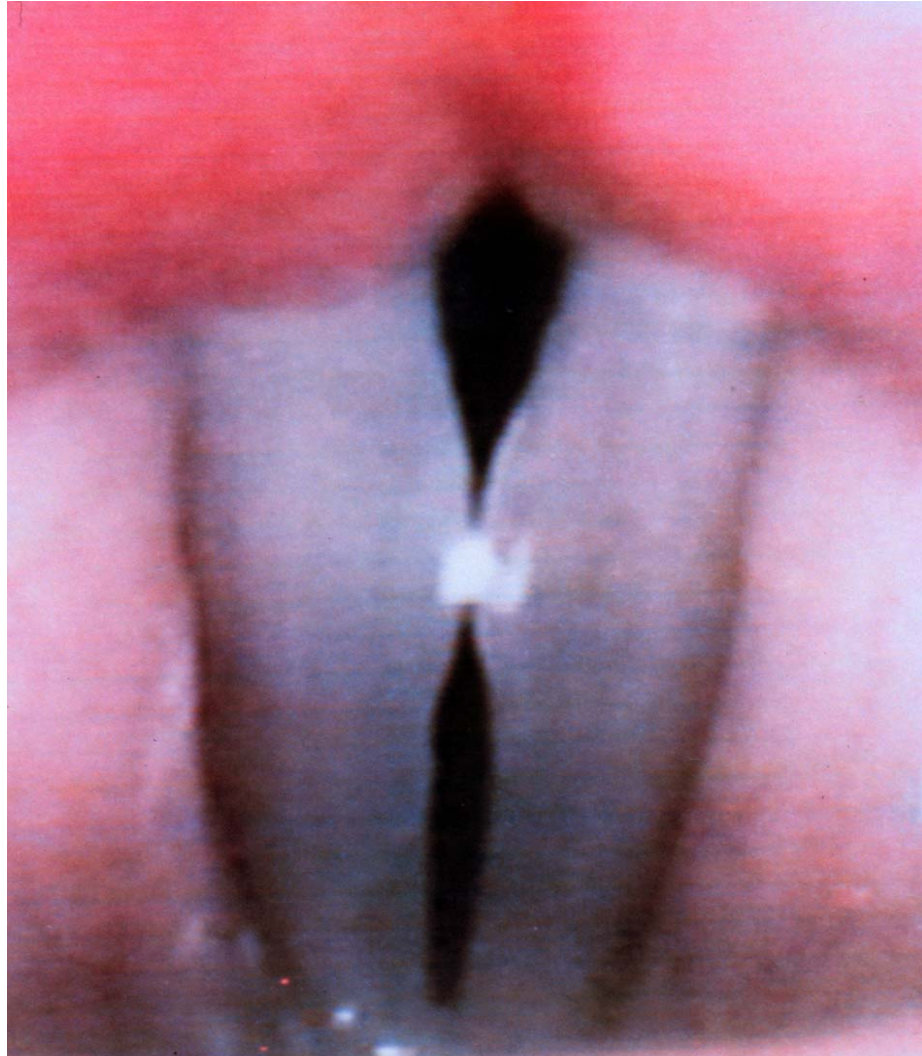
Cyst Removal through Cordotomy



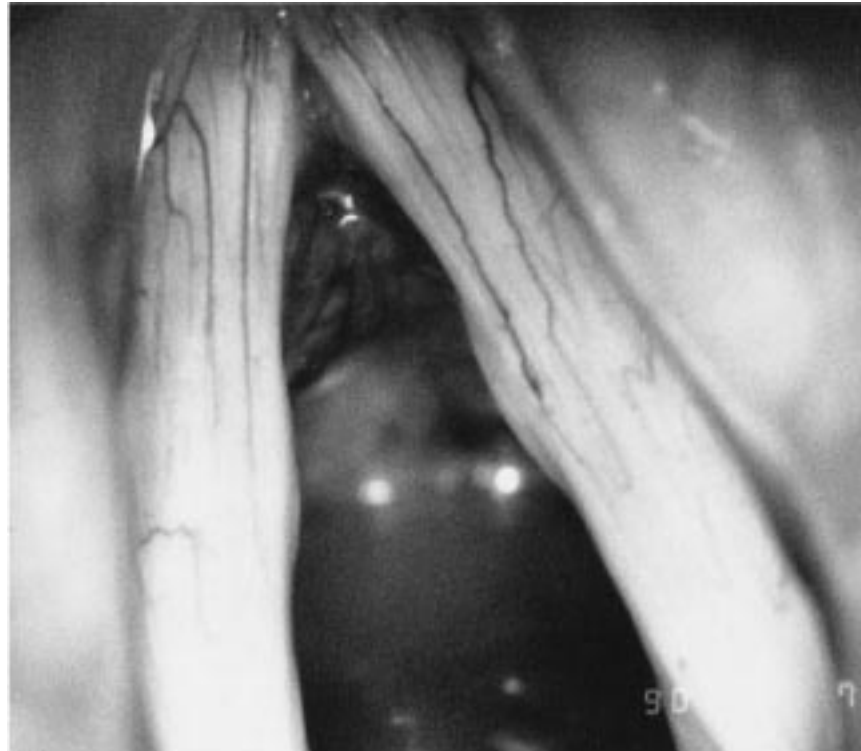
Vocal Fold Nodules

- Bilateral & Fairly Symmetric
- Epidemiology: Boys & Women
- Presentation: breathy, weak, raspy voice
 - Limited vocal range
- Exam: Medial Surface of VFs
- Pathophysiology: Vascular Congestion in submucosa causes hyalinization of Reinke's space & thickening of epithelium

Vocal Fold Nodules



VF Nodules



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Management

- Strobe: no disturbance in mucosal wave
Incomplete closure on glottic cycle
- Medical - hydration, reflux control
- Behavioral - Voice Therapy effective
- Surgical (persistent nodules w/
continued impaired voice)
 - Microdissection followed by voice rest &
speech therapy

Benign Glottic Lesions: II

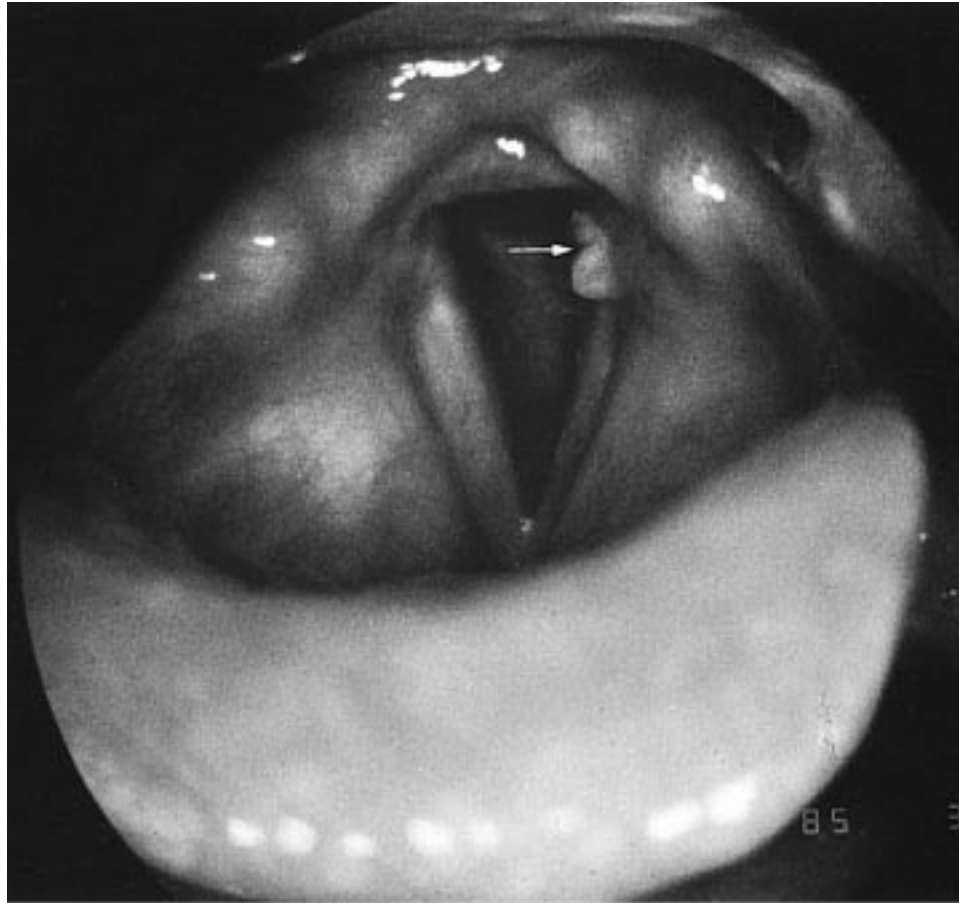
Stroboscopy Rounds

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12/14/07

Contact granuloma

arrow points to cleft in granuloma from contralateral arytenoid

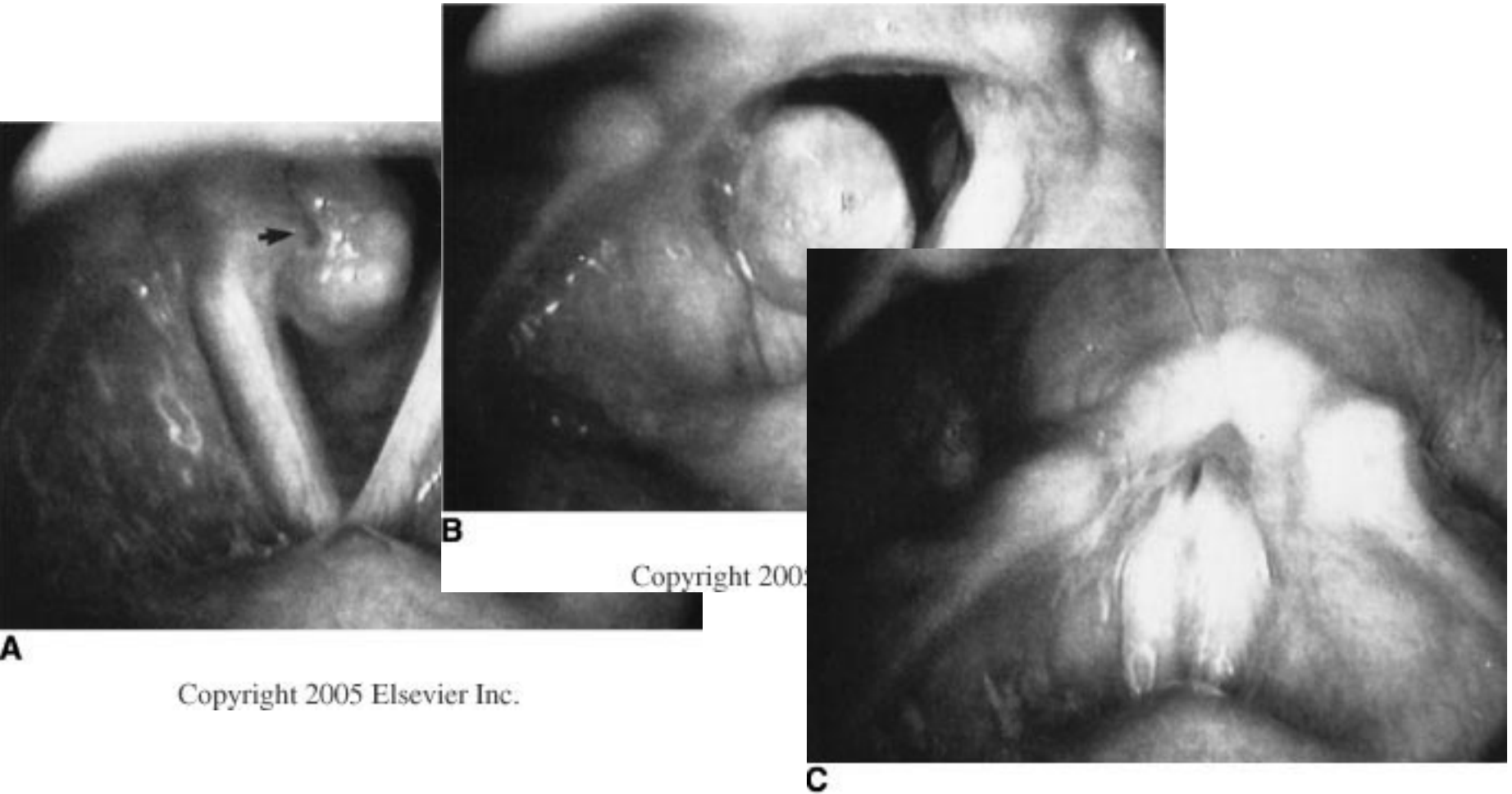


Contact Granuloma

- Seen primarily in males (professional voice)
- Other risk factors: GERD, chronic throat clearing, ?stress?
- Trauma due to forceful adduction produces either ulceration or granulation
- Exam: Laryngoscopy will show a mass over vocal process of arytenoid, possible contact cleft
- Management: antireflux regimen, SLP, ?triamcinolone inh, bx after 3-4 mos med. Mgmt. (preserve the base/pedicle)

Pedunculated contact Granuloma

A below cords B above C normal phonation due to pedunculated below vocal surface



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Postintubation Granuloma

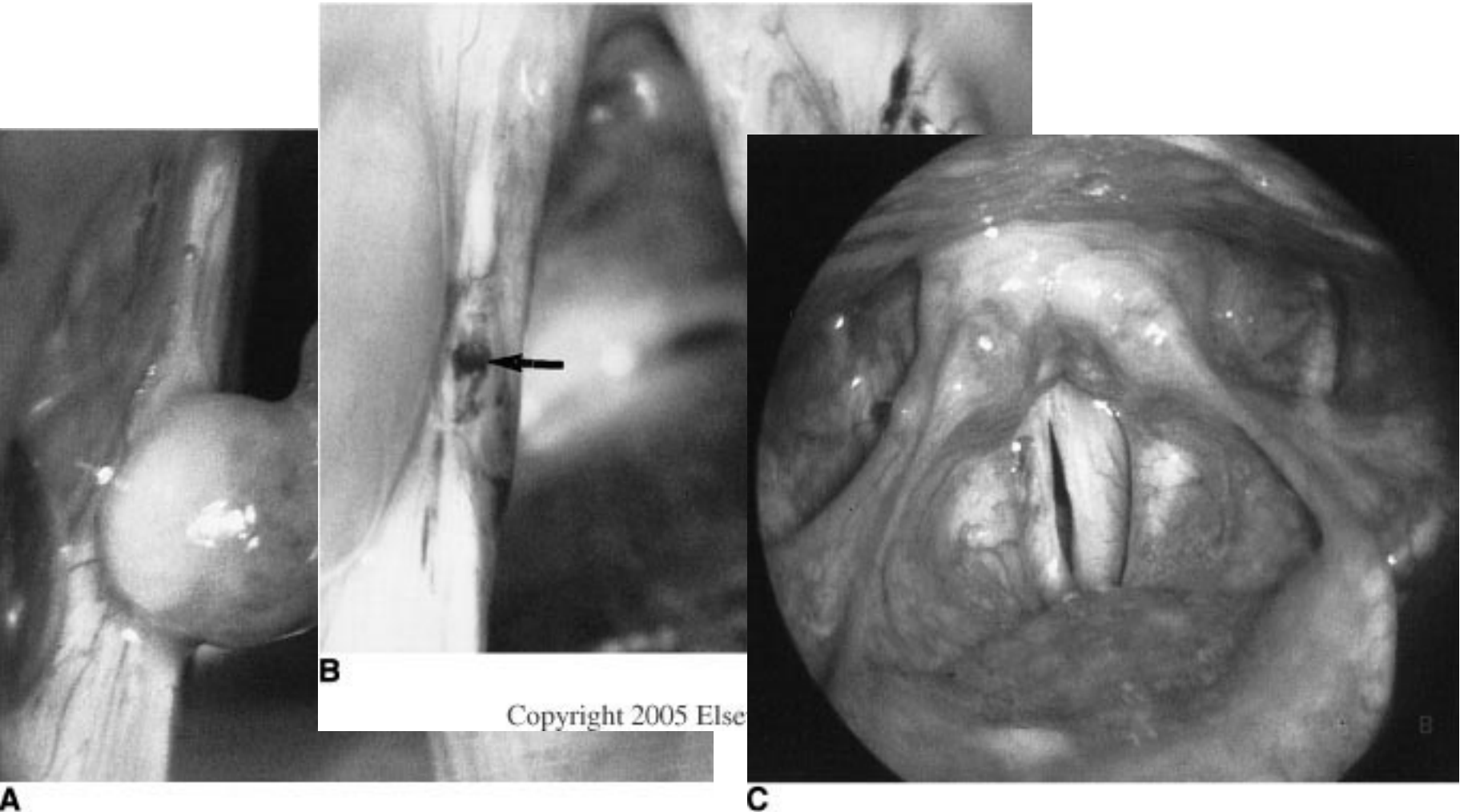


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Postintubation Granuloma

- Self-explanatory name
- Risk factor: intubation/laryngeal instrumentation
- Diagnosis: history and endoscopy are characteristic
- Management: Antibiotics, SLP?, triamcinolone inh?, SML excision preserving stalk?, mitomycin C postop?

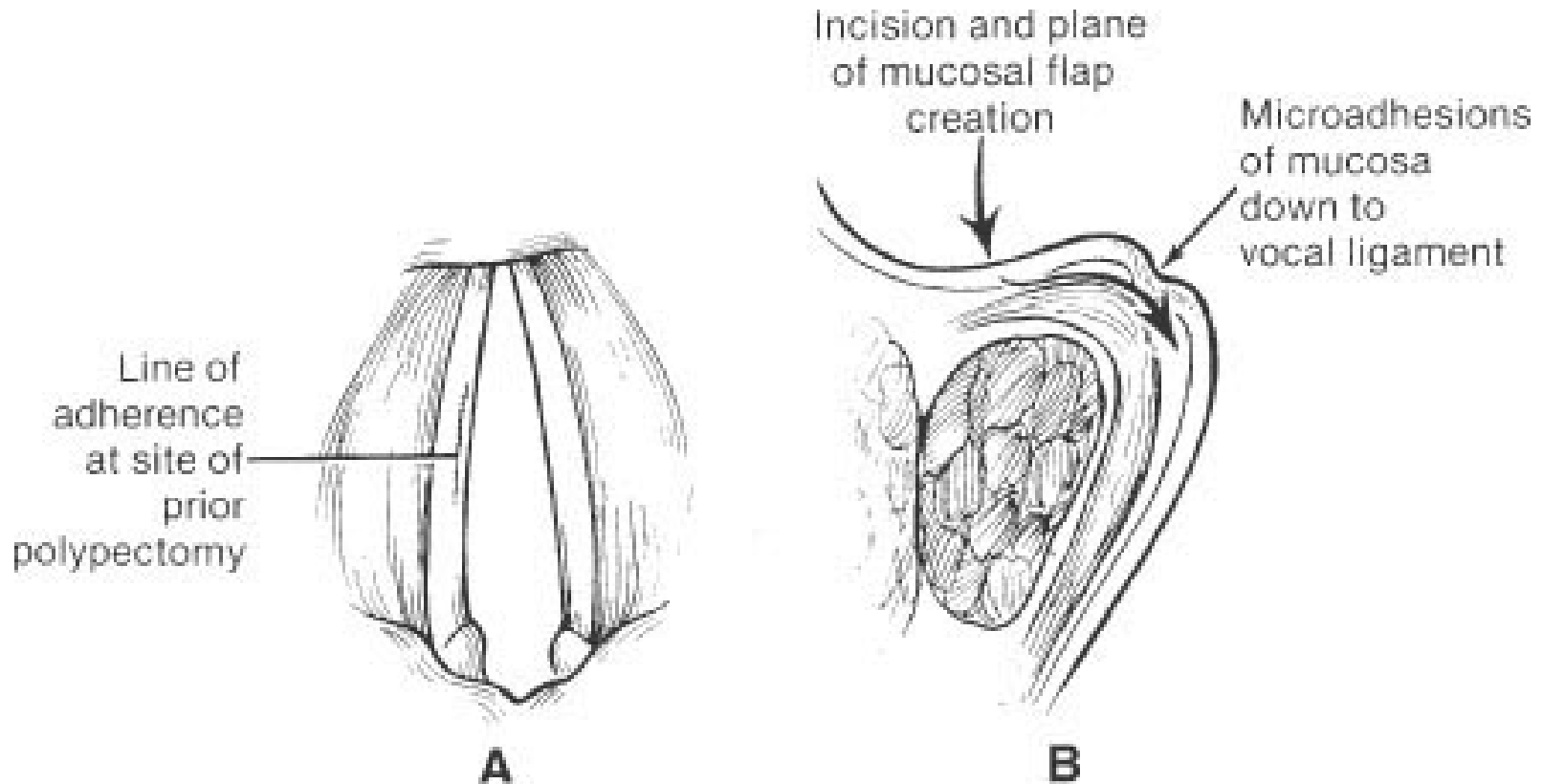
Granulomata after stripping for ?SD?



Post-surgical dysphonia

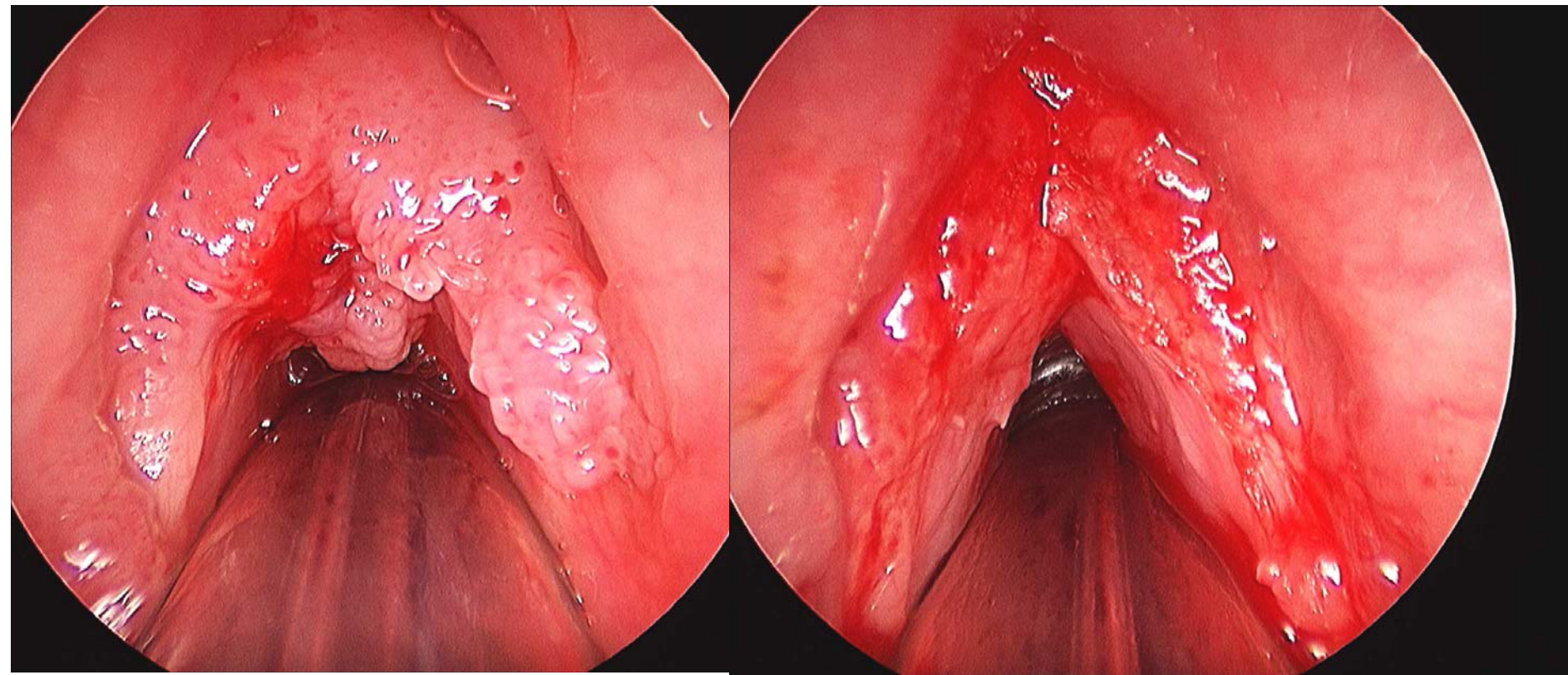
- Scarred/stiff TVC, height mismatch TVC
- Avoided by conservative, meticulous microsurgical technique
- Hx: prior surgery
- Exam: Strobe--stiff folds with minimal mucosal wave, even at low frequencies
- Management: voice-building for 1 yr. Then surgery?

Surgical approach to adhesions

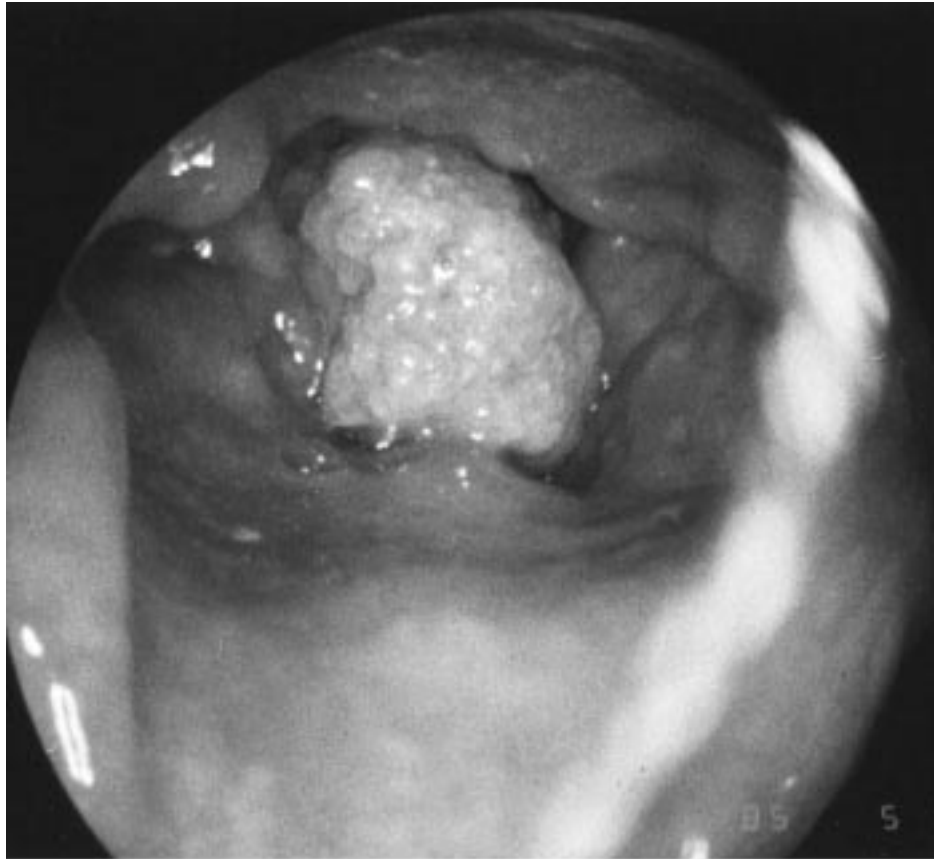


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RRP



Obstructing RRP: Trach



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RRP

- Squamous papillomata
- The most common benign laryngeal neoplasm (84% in a large series)
- HPV (papova)
- Risk factor: maternal HPV?
- Bimodal presentation: juvenile (severe, progressive), adult (limited, rarely progressive)
- Mgmt: Shaver vs CO2 laser, ?interferon ?indole-3-carbinol ?cidofovir

FIGURE 8-39 A, The surface epithelium of a myxoid vocal cord polyp is unremarkable, covering the hypocellular, basophilic myxoid stroma (H&E, $\times 7.5$). B, A polypoid mass with dilated vessels and scant stroma can be seen in a vascular or edematous polyp (H&E, $\times 150$). C, Degenerative changes can occur within polyps, such as the fibrinoid degeneration identified in this laryngeal polyp (H&E, $\times 150$). D, A singer's vocal cord nodule shows a fibrous connective tissue deposition beneath an unremarkable epithelium. This diagnosis requires a clinical correlation (H&E, $\times 200$).

