New Treatment Options for Chronic Sinusitis

Jesse Ryan, M.D.
Assistant Professor
Head and Neck Surgery & Reconstruction
Department of Otolaryngology

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Disclosures

- I have no financial relationship with any of the companies or products discussed in this presentation.
Sinusitis: Definition

• Chronic Sinusitis
  – Symptoms for more than 12 weeks
    • Nasal congestion
    • Post nasal drip
    • Facial pressure/fullness/headache
    • Decreased sense of smell
  – Evidence of inflammation on exam or imaging

• Recurrent Acute Sinusitis
  – More than four acute sinus infections per year – feel fine in between episodes
Sinusitis: Overview

Statistics
• 37 million afflicted in the US alone
• $8.6 billion in healthcare costs
• Over 58 million days of restricted activity/year
• Accounts for 1 in 5 antibiotic Rx
• 525,000 sinus surgeries per year in the US

Common Symptoms
• Purulent drainage
• Facial pressure and fullness
• Nasal congestion
• Fatigue
• Facial or dental pain
• Headache
• Anatomy

• Historical Context

• Progression of Surgical Techniques
Anatomy

- 8 paired sinuses

- Development continues into adulthood

- Significant variability

- Drainage pathways
  - Anterior
  - Posterior

http://care.american-rhinologic.org/sinus_anatomy
History

- Early sinus surgery was done through external approaches
  - Incisions in the skin or under the lip

- Today this is reserved for more complicated cases
  - Trauma
  - Tumors
  - Severe infections
History

- Technical advances – flexible/rigid endoscopes – 1950s/60s
- Dr. Kennedy describes “FESS” – 1985

http://www.training.seer.cancer.gov
Functional Endoscopic Sinus Surgery

- Less invasive than external approaches
- Goal is to create controlled openings into the sinuses
- Incorporate natural drainage pathways
- Remove inflammatory tissue
- Preserve normal landmarks, mucosa, and functional structures (turbinates) as much as possible
Functional Endoscopic Sinus Surgery

• Technological advances
  – High definition cameras
  – Refinement of surgical tools

• Image guided surgery
  – Mapping a CT scan to instruments used during surgery

• Dramatic changes over the past 10 – 15 years

• But – still a surgery in the operating room with general anesthesia and extended recovery

http://www.medtronic.com
Sinus Balloon Dilation

• Part of the overall evolution in medicine toward less-invasive approaches

• FDA approval 2005

• Tool has expanded our ability to treat sinus disease safely, effectively, less invasively

• Able to care for patients in the office setting, using local anesthesia

• Lower risks, less pain, faster recovery
Case Presentation

- 35 year old male with 6 months of nasal congestion, post nasal drip, sinus pressure
- His symptoms worsen several times per year
- Sometimes diagnosed with an acute infection and given antibiotics
- Has tried nasal steroids (flonase, nasonex), antihistamines (claritin, allegra, zyrtec) without relief
- Referred to ENT by his primary care physician
Case Presentation

• Exam in ENT office shows severe nasal congestion but otherwise not remarkable
• Optimize medical management
  – Nasal steroid sprays
  – Nasal saline
  – Longer course of antibiotics, possibly oral steroids
  – Consider allergy testing
• CT scan of the sinuses obtained after “maximal medical therapy”
Case Presentation
Case Presentation

- What are the options for this patient?
Case Presentation

• What are the options for this patient?

• Continued medical management?
Case Presentation

• What are the options for this patient?

• Continued medical management?

• Sinus surgery in the operating room?
Case Presentation

• What are the options for this patient?
  
  • Continued medical management?
  
  • Sinus surgery in the operating room?
  
  • Office-based intervention?
Evidence

• Comparing outcomes, cost, safety of balloon dilation vs. traditional sinus surgery (FESS)
Balloon Sinus Dilation Data - Summary

• High patient satisfaction, well tolerated in office setting

• Significant reduction in symptoms (similar to FESS)

• Low revision surgery rates (~ 5%)

• Faster return to normal activities (24-48 hours)

• Decreased costs to health care system

• Consistently good results across numerous clinical studies

Data courtesy of Entellus Medical
What would you do?
Chronic Sinusitis Treatment Flow

Facial pain/pressure, PND, Congestion, Infections

Optimize medical management

Symptoms persist >12 weeks, or infections recur 4 times per year

Refer to ENT for sinus work-up

Medical Management

Treated CT Sinus

FESS

Office Balloon Sinus Dilation
Sinusitis: Treatment options

**Medical Therapy**
Medicines commonly used to treat bacterial infection and allergies and provide symptomatic relief to the patient.

Limitations:
- Does not address underlying anatomy
- Side effects

**Office Sinus Dilation**
Ideal for patients who fail medical therapy but do not need, want, or are unable to have sinus surgery.

Limitations:
- May not be able to treat some complex sinus disease

**Sinus Surgery**
For patients who fail medical management and suffer from complex sinus disease. More invasive than balloon dilation.

Limitations:
- Requires general anesthesia
- Longer recovery

Courtesy of Entellus Medical
How does it work?

XprESS LoProfile Multi-Sinus Dilation Tool with PathAssist LED Light Fiber

Knowing changes everything™

Courtesy of Entellus Medical
How does it work?

Treat frontal (forehead), maxillary (cheek), sphenoid and front part of the ethmoid sinuses
Procedure overview

• Office procedure – 60 minutes

• Pain medication, anti-anxiety medication, topical/local anesthesia

• Balloon gently inserted into natural drainage pathways of affected sinuses

• Expanded to dilate and remodel drainage pathways of the sinuses
Office sinus dilation

- Syracuse Channel 9 News Story
Conclusions

- Balloon sinus dilation is a tool that allows a less invasive, office-based treatment for chronic sinusitis
- Has been shown to be safe and effective
- Part of the progression in medicine toward minimally invasive surgery and office-based procedures
- Decreased costs to the health care system
References

- Thomson Reuters Outpatient Procedure Database.
QUESTIONS?