Medical Management of Sinusitis

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Special Acknowledgement

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Disclosures

• Consultant – Stryker & Medtronic
Objectives

• Describe meaning of “medical management” prior to surgery
• Explain medical management options for chronic sinusitis
  • Without polyps
  • With polyps
3 References

- European Position Paper on Rhinosinusitis and Nasal Polyps 2012
- AAO clinical practice guidelines 2015
- International Consensus Statement on Allergy and Rhinology: Rhinosinusitis 2016
CRS w/s NP (EPOS 2012)

2+ symptoms
   either nasal blockage or nasal discharge

± facial pain/pressure
± reduction smell

≥12 weeks

Objective evidence (CPG)
   rhinoscopy
   endoscopy
   CT
Why?

• Bacteria
• Viruses
• Fungus
• Allergy
• Immune problems
• Ostial obstruction
• Septal deviation
Chronic Sinusitis – Syndrome or Disease?

- Inflammation
- Multiple etiologies
- Multiple endotypes
- Hard to target what’s not fully understood
Prescribing Habits

Arianpour, IFAR, 2018
Times they are A-changin’

- Bob Dylan
Chronic Sinusitis without Polyps
Topical steroids CRSsNP

- No RCT showed placebo > INCS
  - Some didn’t show difference

- Significant improvement in symptoms
  - At least 8-12 weeks
Systemic Steroids CRSsNP (EPOS 2012)

Limited data showing efficacy of oral corticosteroids

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of evidence</th>
<th>Grade of reco</th>
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<tbody>
<tr>
<td>Local</td>
<td></td>
<td></td>
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<tr>
<td>INCS improve symptoms and patient reported outcomes in CRSsNP</td>
<td>1a</td>
<td>A</td>
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<tr>
<td>Delivery of INCS directly to sinuses brings about a greater effect</td>
<td>1a</td>
<td>A</td>
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<tr>
<td>Patients with prior sinus surgery have a positive effect of INCS compared to those without surgery</td>
<td>2a</td>
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<td>INCS is associated with only minor side-effects</td>
<td>2a</td>
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<tr>
<td>Modern INCS do not have greater clinical efficacy (although potentially fewer side-effects) compared to first-generation INCS</td>
<td>1a</td>
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<td>Systemic</td>
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<tr>
<td>Systemic corticosteroids benefit CRSsNP</td>
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</table>
Antibiotics CRSsNP

• Exacerbations w + culture
  • challenged

• Low-dose macrolide x12 wks
  • normal serum IgE
  • open studies: response 60-80%

• No benefit of topical antibiotics
  • No RCT showed additive compared to saline
Irrigation CRSsNP

• Role
  • Remove mucus & irritants
  • Enhance ciliary movement
• Improves symptoms
• Irrigation > nasal spray
• Consider Xylitol (EPOS)
CRS with polyps
Systemic Steroids - CRSwNP

• Cochrane and RCT

• Improvement in symptoms
• Shrinkage of polyps
• Risk-benefit
Topical Steroids - CRSwNP

- Symptoms improve
  - Mixed result w smell
- Polyps shrink
- Prolonged treatment
  - Relatively safe
Antibiotics - CRSwNP

- Doxycycline x3 weeks vs. placebo
  - Small effect on polyp size and PND
  - Other symptoms similar
- Long course antibiotics
  - Macrolides
  - Small effect on polyp size and symptoms

- Recommend against (ICARS)
Antifungal

“Clinicians should not prescribe topical or systemic antifungal therapy for patients with CRS. “

Clinical Practice Guideline
After Surgery
Ongoing Care

- Topical steroids
- Systemic steroids
- Saline irrigations

- Antibiotics?
Distribution methods

- Pre-surgery, distribution is limited
  - Esp frontal & sphenoid
- Sprays are least effective
- Nebulization with <3% sinus penetration
- <2% of total irrigation volume
On the Horizon

• Targeted therapy
• Leukotriene antagonists
• Anti-IgE
• Anti-IL-4 and IL-13
• Anti-IL-5
Summary

- CRS without NP
  - Topical steroids
  - Irrigation
  - ± macrolide
  - ± oral steroids
- CRS with NP
  - Topical and oral steroids
    - Oral pre-op
  - Irrigation
  - Consider macrolide or antibiotic IF active infection
Thank You