“Sinus Headache” or Migraine?

- Paulson and Graham (2004)
  - 104 patients presenting to Otolaryngologist with “sinus headache” sent to neurologist and received the following diagnoses:
    - 37% migraine headaches, 17% chronic daily headache, 17% rebound headache, 16% obstructive sleep apnea
- Perry (2004)
  - 21 of 36 (60%) patients with complaints of “sinus headache” diagnosed with migraine
Treatment of Sinus Headache as Migraine: The Diagnostic Utility of Triptans

Questions addressed

- Is there an easy way for the Otolaryngologist to determine if the patient presenting with a complaint of “sinus headache” is a patient suffering from migraine headache?
- Can response to triptans be useful in diagnosing migraine headache?
Study Design

• **Objective:**
  • assess the response rate to triptans in patients with “sinus headache” in absence of clinical sinusitis

• **Inclusion Criteria:**
  • chief complaint of “sinus headache”
  • negative nasal sinus endoscopy
  • CT negative for sinus disease within 6 months

• **Exclusion Criteria:**
  • contraindications to triptan use
    • cardiovascular disease, mitral valve prolapse, tachycardia
  • Headache due to another identifiable cause
Study Design

• **Intervention:**
  - eletriptan 40mg at onset of headache
  - Repeat after 2 hours if headache persisted
  - Every single headache was treated

• Patients followed up within 1-3 months
  - Headache diaries logging response to triptan therapy to each headache

• **Further Treatment**
  - sumatriptan and/or rizatriptan if not responsive to initial triptan
Results

• N= 55
• F= 37 (67%)  M=18 (33%)
• Median age= 39y
• 41 (73%) patients enrolled met IHS criteria for migraine
Results

- 38 patients completed study
  - Almost a third of enrolled patients did not follow-up
    - Significant resistance to accepting a diagnosis of migraine
    - Patients have often spent years being told, often by their physicians, that their headaches are sinus-related
# Results

<table>
<thead>
<tr>
<th>Reduction Type</th>
<th>Number of Patients (%)</th>
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<tbody>
<tr>
<td>&gt;50% Reduction in Headache with triptan use</td>
<td>31 (81.6%)</td>
</tr>
<tr>
<td>25-50% Reduction in Headache with triptan use</td>
<td>1 (2.6%)</td>
</tr>
<tr>
<td>No Response with triptan use</td>
<td>3 (7.9%)</td>
</tr>
<tr>
<td>Significant Reduction in Headache with migraine-directed therapy, lifestyle or diet changes</td>
<td>3 (7.9%)</td>
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Support for Triptans in treatment of “Sinus Headache”

Sinus Headache = Migraine

- Ishkanian (2007)
  - 216 patients
  - sumatriptan v. placebo: significant reduction in headache 69% v. 43% @ 2hrs, 76% v. 49% @ 4hrs

- Cady and Schreiber (2002)
  - 47 patients
  - 66% of patients reported significant relief with sumatriptan

- Both trials used a single dose, and a single agent
Conclusions

• Highly SELECTED Study Population
  • Normal sinus CT
• 73% of the initially enrolled patients met IHS criteria for migraine, most of whom had not been diagnosed previously
• 82% of our study population had a significant reduction in headache with triptan use
  • 13% with contact points
Conclusions

• Importance of Otolaryngologist to recognize migraine in the evaluation of “sinus headache”
• Triptans provide a simple diagnostic aid in determining if “sinus headache” is migraine
Contact Point Headache

An indication for surgery by itself or a trigger for migraine?

Decongestant and topical anesthetic administration to see if pain resolves
34 patients with headache as one of their symptoms underwent ESS and relief of contact points
  - Reduction of intensity and frequency of headaches in 91 and 85%, respectively
  - 13.9 months follow-up

Too many confounding factors
13% of patients in our study had contact points and responded to triptans.
Endosnasal surgery for Contact Point Headaches: a 10-year longitudinal study

- 20 patients treated for headaches by surgery for contact points over 18 year period
- average follow-up of 112 months
- 6 pain free, 7 significantly improved (65%)
- 7 no better (2 recurred 7 and 8 years later)

- Does contact point act as migraine trigger?
Non-Sinusitis Related Rhinogenous Headache: a Ten-Year Experience

- 66 patients with medically refractory headaches and negative CT scans for inflammatory disease diagnosed with rhinogenic headache
- Underwent ESS +/- septoplasty for:
  - Deviated septum (30)
  - Concha bullosa (33)
  - Haller cells (11)
- 91% of patients had significant improvement of headache
Surgical treatment of patients with refractory migraine headaches and intranasal contact points


- 21 patients with refractory migraine or transformed migraine, evidence of contact points on CT scan, and positive response to lidocaine application to contact area underwent ESS and septoplasty
- HA severity reduced from 7.6 to 3.8 (p=.0001)
- HA related disability reduced from 5.6 to 1.8 (p=.0001)
- 76.2% had >50% pain reduction, 95.8% had >25% reduction
Conclusions

- Cranial autonomic symptoms frequently present in migraine headache
  - Nasal congestion, rhinorrhea, lacrimation, eyelid edema
- Sinus Headache is likely migraine or a migraine variant in many cases
  - Frequently responds to triptans (migraine specific medication)
- What is the role of Contact points?
  - Trigger for migraine?
  - Cause of headache?
  - Need to decide for yourself
THANK YOU