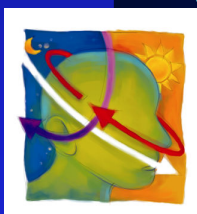


## “Sinus Headache” or Migraine?

- 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



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*Treatment of Sinus Headache as  
Migraine: The Diagnostic Utility of  
Triptans*

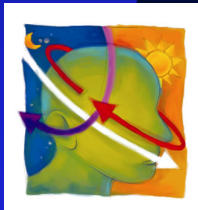
Kari E, DelGaudio JM. Laryngoscope  
2008;118:2235-39.



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## 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?



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# 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

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# Study Design

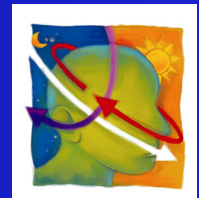
- Intervention:
  - eletriptan 40mg at onset of headache
  - Repeat after 2 hours if headache persisted
  - Every single headache was treated
- Patients followed up within 1-3 months
  - Headache diaries logging response to triptan therapy to each headache
- Further Treatment
  - sumatriptan and/or rizatriptan if not responsive to initial triptan

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## Results

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



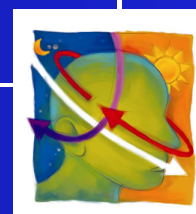
## Results

- 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

	Number of Patients (%)
>50% Reduction in Headache with triptan use	31 (81.6%)
25-50% Reduction in Headache with triptan use	1 (2.6%)
No Response with triptan use	3 (7.9%)
Significant Reduction in Headache with migraine-directed therapy, lifestyle or diet changes	3 (7.9%)





## 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

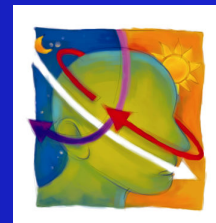
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## Conclusions

- 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

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## 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

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# Contact Point Headache

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



Decongestant and topical anesthetic administration to see if pain resolves

## FESS Outcomes for Contact Point Headaches

Parsons DS, Batra P. Laryngoscope 1998;108:696-702.

- 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.**

## Endonasal surgery for Contact Point Headaches: a 10-year longitudinal study

Welge-Leussen A, et al. Laryngoscope 2003;113:2151-6.

- 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

Huang HH, Lee TJ, Huang CC. Amer J Otolaryngol 2008;29:326-32.

- 66 patients with medically refractory headaches and negative CT scans for inflammatory disease diagnosed with rhinogenous 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

Behin F et al. Cephalalgia 2005;25:439-43.

- 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**

