

Framing Phantosmia

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My introduction to Phantosmia

- Patients would complain to me that they smelled unpleasant things that others could not smell
- Some could stop it with nostril occlusion
- Most were middle-aged females
- Some had smell loss, others did not
- A few had migraine headaches
- Peripheral or central?



Prevalence among US adults 40+

- Recently participated in analysis of NHANES survey data with Kathy Bainbridge and Danita Byrd-Clark (JAMA Otol-HNS, 2018)
- 7417 adults, nat'ly rep. sample
- “Do you sometimes smell an unpleasant, bad, or burning odor when nothing is there?”
- Olfaction tested with 8-item scratch-and-sniff odor ID



Study findings

- Phantom odor perception in 6.5% (534 people)
- 5.4% in 60+ group; Similar to Swedish study (Sjolund, et al) at 4.9%
- 68% of phantoms were women
- Lower socioeconomic class
- Associated sx's = Persistent dry mouth and hx of head injury
- Phantosmia had no significant association with smelling ability

Do these survey associations help to understand Phantosmia?

- If head injury were causative, would expect more men
- Dry mouth is part of Sjogren's. Smell loss, but not phantosmia reported. Dry from medications?
- Lower socioeconomic class not previously associated with phantosmia, but possibly related to poor air quality



Known associations with Phantosmia (not asked in survey)

- Schizophrenia
- Other serious mental illness
- Seizures
- Migraine



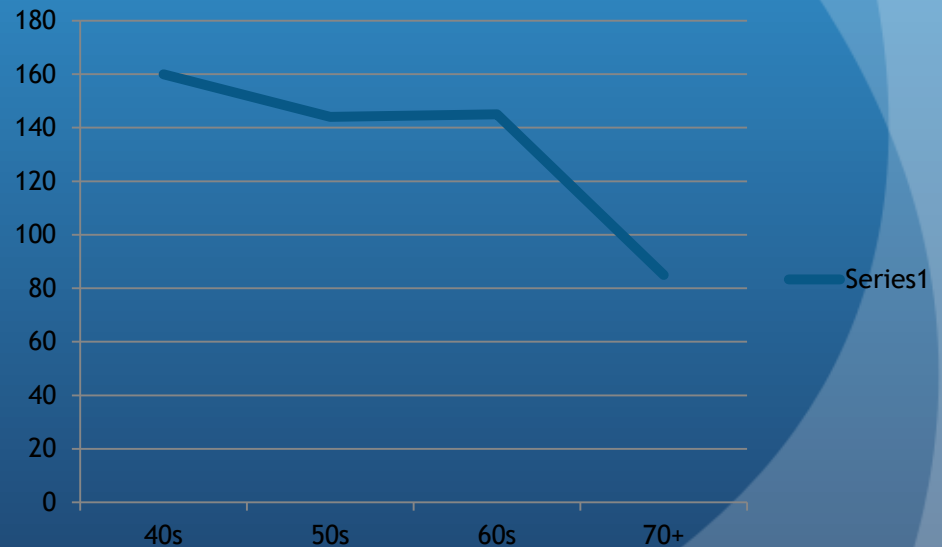
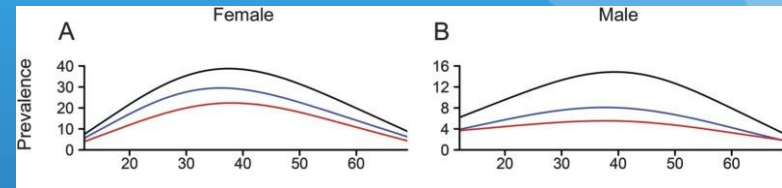
What about Schizophrenia?

- Male/female = 1.4/1
- Prevalence is about 1.2%
- Runs in families
(phantosmia does not)
- Worse with age
(phantosmia often gets better)



Migraine has demographics similar to Phantosmia

- Women/men = 3/1
- Most affects those 35-45 y/o
- Symptoms come and go
- Pain or smell can be constant
- Big reduction in quality of life
- More prevalent in lower socioeconomic groups



Treating Phantosmia...as a central brain problem

- Block nostril airflow (with saline in inverted head, finger, Kleenex, etc)
 - Eliminates trigger?
- Time
 - Resolves about one year spontaneously
- “brain active” medications (gabapentin, anti-seizure, anti-depression, etc)
 - treat central brain
- Surgery to destroy peripheral input (excise bulb or olfactory neuroepithelium)
 - Not always successful
 - Can start in other nostril
 - Risky surgery
 - Phantosmia can start after skull-base surgery



Conclusion

- There is still much to learn about Phantosmia
- Knowing the demographics helps understanding
- Maybe a Migraine variant?
 - Try anti-migraine therapy?
- Avoid surgery

