DIAGNOSTIC WORKUP AND TREATMENT OPTIONS FOR CHRONIC COUGH: AN ENT PERSPECTIVE

Joseph Han, MD, FARS, FAAAAI
Professor, Eastern Virginia Medical School
Norfolk, Virginia, USA

Chief, Division of Rhinology and Endoscopic Sinus/Skull Base Surgery
Chief, Division of Allergy

Immediate Past President, American Rhinologic Society
Chair, RROAC, American Academy Allergy Asthma Immunology

DISCLOSURE

Research Consultant
• Sanofi, Regeneron, Regeneron, AstraZeneca, GlaxoSmithKline, Genentech, Novartis, Roche, Medtronic, Optinose, Aerin, Merck
DEFINITION

- What is chronic cough
  - Many different names (idiopathic cough, cough hypersensitive syndrome)
- New FDA applications for chronic cough
  - Indication for use for FDA approved treatment
    - Refractory chronic cough (RCC) and unexplained chronic cough (UCC)
    - Consistent with ATS definition

ICD 10 CODE

- ICD 10 code for chronic cough
  - UCC and RCC under this code
- What does this mean for ENT for RCC or UCC
- Work up and management until getting to diagnosis of RCC
4 MOST COMMON CAUSES

- Upper Airway Cough Syndrome (UACS) secondary to rhinosinus diseases: Consider
  - Sinus imaging, nasopharyngoscopy, and allergy evaluation or empiric treatment
- Asthma: Ideally evaluate:
  - Spirometry, bronchodilator reversibility, bronchoprovocation challenge, and allergy evaluation or empiric treatment
- Non-asthmatic Eosinophilic Bronchitis (NAEB): Ideally evaluate:
  - Sputum eosinophilia, fraction exhaled nitric oxide (FENO), and allergy evaluation or empiric treatment
- Gastroesophageal Reflux Disease (GERD)
  - Physiologic testing for refractory patients and more than acid suppression
COMMON CAUSES BY OTO-HNS

• Upper Airway Cough Syndrome (UACS) secondary to rhinosinus diseases: Consider
• Gastroesophageal Reflux Disease (GERD)
• Superior Laryngeal Nerve Hypersensitivity
  • RCC or UCC?
• For each diagnosis
  • How do we diagnose
  • How do we manage

An update and systematic review on drug therapies for the treatment of refractory chronic cough
Nicole M. Ryan a, Anne E. Vertiganb,c and Surinder S. Birringd EXPERT OPINION ON PHARMACOTHERAPY, 2018 VOL. 19, NO. 7, 687-711

UPPER AIRWAY COUGH

• Presence of type 2 CRS
• Objective finding with radiographic imaging or nasal endoscopy
• Presence of active disease
UPPER AIRWAY COUGH

- Medical management
  - Systemic or topical steroid
  - Antibiotic
- Surgical management
  - Endoscopic sinus surgery

LARYNGOPHARYNGEAL REFLUX

- Based on symptoms
- Nasopharyngoscopy
  - Endoscopic findings of laryngopharyngeal swelling
  - Arytenoid swelling
LARYNGOPHARYNGEAL REFLUX

- Medical management
- Behavior management
  - No caffeine, no fatty food at night, no late meals at night
- H1 blocker
- Wedge pillow
- Weight loss

Randomised clinical trial: high-dose acid suppression for chronic cough – a double-blind, placebo-controlled study

SUPERIOR LARYNGEAL NERVE HYPERSENSITIVITY

- Based on history
- Does not respond to trial of medical treatment
- Capsaicin challenge
  - IND for research study purpose
  - Baseline threshold: 138.4
- ATP challenge
  - Not available in US

ANNE E. VERTIGAN,1,3,4 SARAH L. BONE3,4 AND PETER G. GIBSON1,2,4,5 Laryngeal sensory dysfunction in laryngeal hypersensitivity syndrome Respirology (2013) 18, 948–956 doi: 10.1111/resp.12103
SUPERIOR LARYNGEAL NERVE HYPERSENSITIVITY

- Medical management
- Opioid such as morphine
- Non opioid such as tramadol, gabapentin, and amitriptyline
- Speech (behavioural) therapy


CONCLUSION

- Otolaryngic causes for chronic cough are limited and should be evaluated
- Chronic cough should be evaluated and managed through a multispecialty approach to get the best patient outcome
THANK YOU