Muscle Tension Disorder: So you think you are a voice disorder?

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Muscle Tension Disorder
- Diagnosis
- Teleological Thinking
- Secondary MTD

We Just Don’t Know!

Diagnosis of Voice Disorders
- We listen: dysphonia
  - Analyze the nature and characteristics
- We look: endoscopy
  - Structural analysis
  - Behavioral analysis
    - Tasks
- We classify:
  - Lesion(s)
  - Mobility issues
  - Mucosal disease (LPR, allergic, ...)

Rx
**Muscle Tension Dysphonia**
- We hear the dysphonia
  - Mild to severe to loss of voice
- We look
  - Vocal fold closure?
  - Increased/ Inappropriate Muscle Tension?
    - Glottic?
    - Supraglottic?
  - Supraglottic Constriction with speech?
    - False Vocal Fold medialization?
    - Anterior – Posterior?

**Teleological Thinking**
- Observing the result and then making assumptions/inferences on how something happened based on the knowledge of the result

**MTD: Secondary to?**
- Glottal Incompetence
  - VF Paralysis
  - VF Paresis
  - VF Scar
  - VF Atrophy
- VF Lesions
  - Muscle tension/ hyperfunction due to lesions or are the lesions to the muscle tension/ hyperfunction
- Mucosal Inflammation
- Neurologic Condition
- Psychiatric Condition

**Teleological Thinking**
- Patient complains of throat pain with excessive talking and is observed to have FVF hyperadduction during speech
  - There must be too much muscle tension in the FVFs causing the patient’s symptom
- True?
- True and True but unrelated?
- Not True?
Secondary MTD?

- If it is 2nd to something, why even discuss it as a separate entity?
  - Bilateral mid-membranous VF lesions
  - Do we need to “make” another diagnosis?
  - Do we need to “infer” that the patient has compensatory hyperfunction?
  - How does this help us care for patients?
  - Learn more about voice disorders?

Hyperparathyroidism

- Primary hyperparathyroidism results from a hyperfunction of the parathyroid glands themselves.
- Secondary is the reaction of the parathyroid glands to a hypocalcemia caused by something other than a parathyroid pathology, e.g. chronic renal failure
- Tertiary results from hyperplasia of the parathyroid glands and a loss of response to serum calcium levels
- Quartary and quintary are rare conditions that may be observed after surgical removal of primary hyperparathyroidism, when it has led to renal damage that now again causes a form of secondary (quartary) hyperparathyroidism that may itself result in autonomy (quintary hyperparathyroidism).

Chicken vs the Egg

- Term was to used to emphasize the concept that not all “observed” laryngeal hyperfunction was primary MTD that it is important to look for sources of glottal incompetence when laryngeal hyperfunction is seen
  - D'Antonia 1995
  - Smith 1995
  - Belafasky 2002
2nd MTD - Proposal

- Helpful for cases of glottal incompetence related to
  - VF Paralysis
  - VF Paresis
  - VF Atrophy
  - VF Scar
- Very little value for our “Secondary” etiologies

Secondary MTD

- Glottal Incompetence
  - VF Paralysis
  - VF Paresis
  - VF Scar
  - VF Atrophy

- VF Lesions
  - Muscle tension/hyperfunction due to lesions or are the lesions to the muscle tension/hyperfunction

- Mucosal Inflammation
- Neurologic Condition
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Secondary MTD - Diagnosis

- Great care should be taken to evaluate for possible glottal incompetence
- Prevents sending patients to voice therapy with a low option for improvement
- Maintain a high degree of suspicion for patients not responding to voice therapy
- Laryngeal Endoscopy
  - Stroboscopy (flexible)
  - Stroboscopy (rigid)
- Exam under complete local anesthesia?
- LEMG?
- Trial VF injection?

Thank You!