Muscle Tension Dysphonia

Muscle Tension Dysphonia (MTD) is a voice disorder of excess tension in the laryngeal and paralaryngeal muscles. Patients experience a rough and strained dysphonia and often times, pain associated with voice use. Diagnosis is based largely on history, fiberoptic exam findings, perceptual and acoustic voice analysis. First line treatment is voice therapy and in cases of secondary MTD, treatment of the primary voice issue is essential.

Anatomy & Physiology

- Morrison –Rammage classification divides MTD into 5 types based on 6 laryngeal features.
  - Laryngeal Isometry
  - Glottic Contraction
  - Supraglottic Contraction
  - Anterior-Posterior Contraction
  - Incomplete Adduction
  - Bowing


Assessment

- Morrison et al described diagnostic features based on history, laryngoscopic examination, perceptual-acoustic assessment, voice-related musculoskeletal features and psychological evaluations.


- Van Lawrence classified MTD into intrinsic and extrinsic laryngeal features based on fiberoptic exam. Intrinsic features are 1) harsh approximation of arytenoids, 2) minimal vocal cord length visibility, 3) vestibular fold contribution to phonation. Extrinsic features are 1) excessive vertical movement of the larynx, 2) anteroposterior compression of the larynx and 3) lateral compression of the larynx.


Pathophysiology

- Etiologic factors are characterized into three subgroups: 1) psychological and/or personality factors, 2) vocal misuse and abuse, and 3) compensation for underlying disease.

Treatment

- Voice therapy is mainstay of treatment and numerous studies reveal positive effects through several different treatment approaches.