

Myasthenia Gravis and Dysphagia

1. What is Myasthenia Gravis:

- a. An autoimmune neuromuscular disease leading to fluctuating muscle weakness and fatigability.
- b. Characterized by weakness and rapid fatigue of skeletal muscles
- c. Bulbar muscle involvement and dysphagia are commonly seen in patients with MG.

2. Common clinical findings in patients with Myasthenia Gravis.

a. Oral Motor:

- i. Ptosis: drooping or falling of the upper eyelid
- ii. Fatigability of muscle strength with repetitive movement.
- iii. Palatal droop
- iv. Diminished or absent gag response.

b. Motor Speech Evaluation

- i. Phonation: Hypophonic, breathy, hoarse and/or wet vocal quality.
- ii. Articulation: Reduced precision which fatigues with continuous use
 1. Assess by stress testing (i.e. oral diadochokinetic completion across at least 3 trials each, counting 1-75)
- iii. Resonance: Hypernasality and excess nasal air emission that increases with stress testing

c. Clinical Swallow Evaluation

- i. Difficulty with secretion management
- ii. Muscle fatigability affecting bolus formation, mastication and pharyngeal stripping wave (?).
- iii. Excess swallows
- iv. Overt coughing and increase in wetness of vocal quality.

3. Speech-Language Pathology intervention in patients with Myasthenia Gravis

- a. Be in close communication with the patient physicians regarding plan for treatment.
- b. Supplement clinical planning with a videofluoroscopic swallow study coordinated with medical treatment, i.e., IVIG, plasmapheresis.
- c. Provide dietary modifications
- d. Provide recommendations for alternative means of nutrition/hydration/medication.

4. Resources:

- a. Conti-Fine, B. M., Milani, M., & Kaminski, H. J. (2006). Myasthenia gravis: past, present, and future. *The Journal of Clinical Investigation*.
- b. Fowler, S. B., Herrington, J. B., Koopman, W. J., & Ricci, M. (2013). Care of the Patient with Myasthenia Gravis: AANN Clinical Practice Guideline Series. *American Association of Neuroscience Nurses*, 1-32.
- c. Higo, R., Nito, T., & Tayama, N. (2005). Videofluoroscopic Assessment of Swallowing Function in Patients with Myasthenia Gravis. *Journal of the Neurological Sciences*, 231, 45-48.
- d. Kluin, K. J., Bromberg, M. B., Feldman, E. L., & Simmons, Z. (1996). Dysphagia in Elderly Men with Myasthenia Gravis. *Journal of the Neurological Sciences*, 138, 49-52.
- e. Myasthenia Gravis
<https://www.mayoclinic.org/diseases-conditions/myasthenia-gravis/diagnosis-treatment/drc-20352040>
- f. Rison, R. A. (2009). Reversible Oropharyngeal Dysphagia Secondary to Cricopharyngeal Sphincter Achalasia in a Patient with Myasthenia Gravis: A Case Report. *Cases Journal*, 1-3.