



## Management & Diagnosis of Vocal Fold Paresis

**Peak Woo, MD**

*Medical Advisory Board Member*

**Dysphonia International hosted a webinar with Dr. Peak Woo on Diagnosis and Management of Vocal Fold Paresis on September 28, 2022. Below are Dr. Woo's answers to the questions that were submitted during the webinar but were not answered live. These questions were taken verbatim from the chat and Q&A section.**

**Q: I have had two injections with little success plus courses of vocal therapy again with little success. I miss my voice and am under the care of an ENT who is excellent. Am I missing new procedures that would give a more permanent solution?**

**A:** Injection of material into the vocal fold should only be performed in small. If the gap is large other treatments such as medialization laryngoplasty can be considered. If the situation is complicated by other issues such as Parkinson's disease or dysarthria injection is often not helpful.

**Q: What voice exercises can help presbyphonia?**

**A:** Voice exercises are usually related to vocal function exercises. Expiratory respiratory retraining has also been helpful. A speech language pathologist can do a full assessment is to the balance of breath support, laryngeal function, and resonance.

**Q: I have a growing benign thyroid nodule about 34 mm now. After biopsy my voice issues seemed to get much more present. Is a nodule or a biopsy a possible injury to vagus nerve?**

**A:** It would be highly unlikely but occasionally a hemorrhage can occur in the process of doing the biopsy, but he should be considered, temporary. An examination by a laryngologist can detect if there are subtle abnormalities and whether other testing of the thyroid should be considered.

**Q: My 2-year-old daughter has bilateral vocal cord paresis. Vocal cords have scar tissue and rib grafting is suggested. She is not on a trach. We need a second opinion.**

**A:** Vocal fold scarring in patients that have had previous laryngeal surgery is challenging. I would suggest a pediatric laryngologist such as Dr. Zur at Philadelphia Children's Hospital.

**Q: Does vocal tremor come into this topic? Would you discuss?**

**A:** This talk is not about vocal tremor, vocal tremor should be a separate topic by either a movement disorder specialist or a neuro laryngologist.

**Q: Can you describe why you typically choose gabapentin over Lyrica? It seems to be the drug of choice and there are so many individuals who have had memory loss with this drug.**

**A:** Gabapentin can have side effects as well as pre-gabapentin. Pre-gabapentin is often not covered by insurance for similar indications. I know the neurologist will prescribe very high doses, but I also note that side effects such as confusion is a common complaint.

**Q: What is the prognosis in an infant diagnosed with vocal cord paresis? My daughter was diagnosed at 2 months. She has since had anterior and posterior cricoid cartilage split.**

**A:** It's hard to define the prognosis based on what you have said. Your pediatric otolaryngologist from the Children's Hospital that does a lot of these procedures should be able to give you a better answer.

**Q: I was in China in 2003 and came home with a severe disabling cough that lasted 6-8 months (I was tested for SARS as we were in the epicenter) after that my voice changed and is gravely and cuts in and out. It hurts and feels better when I drink a carbonated soda. Mayo in AZ said I have spasmodic dysphonia. My voice gets better if I have had a glass of wine. Is there another medication that I can take that produces similar effects?**

**A:** The chance of spasmodic dysphonia or respiratory dystonia is a possibility and a comprehensive neuro laryngology clinic should be able to help you tease out the differences. I know Mayo Clinic Arizona has an excellent neuro laryngology center.

**Q: When we say age related atrophy - what is the age range we talking about - 50's, 60's 70's, 80's? How is neurogenic cough diagnosed, is there a specific test for it?**

**A:** Usual vocal atrophy starts around 60s but is very gradual. It is certainly reversible and not pre-ordained. Neurogenic cough, if it's associated with vocal fold paresis can be diagnosed by laryngoscopy and laryngeal EMG. Otherwise, neuro hypersensitivity cough is more of a pattern recognition. I would refer you to the American chest guidelines paper from 2016.

**Q: Do you typically start with just a medication to assist with neurogenic cough or do you commonly pair that with behavioral cough suppression therapy with an SLP from the beginning of treatment?**

**A:** Both behavioral and medical treatment have a role. Both have successes and failures. I typically do refer for both behavioral and medical treatment depending on the severity and likelihood of response.

**Q: Can you explain if impacts of paralysis and/or paresis result in OSA? I would expect this to be more likely, if at all, with motor symptoms. Thank you so much for your time.**

**A:** Occasionally patients with bilateral vocal fold paresis, we will have airway obstruction and present with OSA symptoms, but usually unilateral vocal fold paralysis/paresis does not have OSA as a direct relationship.

**Q: Did you ever hear of having a thyroid biopsy and end up with vocal issues.**

**A:** Yes I have, but it is fairly rare and more likely it is related to the thyroid condition.

**Q: Is there any connection to MTD if it is more of a coordination disorder?**

**A:** Muscle Tension Dysphonia is often compensatory to vocal fold paresis that is if you have a weak system, you are more likely to give more energy and effort, and this results in muscle tension dysphonia.

**Q: Do you see a connection between SD and regurgitation? I had Botox injections for 12 years, then gradually discontinued them, and now at age 80 I have some regurgitation and swallowing problems and am on a maintenance inhaler.**

**A:** Botox injection into the larynx should not result in regurgitation as Botox is injected locally into the laryngeal muscle, not in the esophageal muscle.

**Q: How can Botox help laryngeal paresis?**

**A:** We do not use Botox for vocal fold paresis. Occasionally in patients with vocal cord paralysis with paradoxical reinnervation Botox can be used to treat abnormal vocal fold movement. Due to aberrant reinnervation or synkinesis.

**Q: Post Covid in a 65-year-old man, could sensory damage occur bilaterally and look like atrophy, but perhaps be helped by Gabapentin or other meds?**

**A:** Post Covid voice issues are not uncommon and whether this is a sensory issue or motor issue is simply not well defined yet.