



## AB005. Unilateral vocal cord paresis in classic dermatomyositis

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**Abstract:** Proximal symmetric muscle weakness is a common manifestation of dermatomyositis, though small muscles may also be involved. Despite being well-documented in systemic lupus, vocal cord dysfunction has only been reported in severe systemic dermatomyositis. A 23-year-old female professional vocalist with a two-year history of moderately well-controlled classic dermatomyositis on hydroxychloroquine, methotrexate, and prednisone developed worsening myalgias, arthritis, and typical rash while tapering prednisone. She noted new-onset hoarseness that was initially attributed to gastroesophageal reflux. Endoscopy demonstrated mild gastritis and a 24-hour esophageal pH probe demonstrated reflux episodes, but symptoms did not noticeably respond to ranitidine and esomeprazole therapy. Esophageal

manometry did not demonstrate muscular abnormalities. Stroboscopedaryngoscopy demonstrated left vocal cord paresis, Reinke edema attributed to laryngopharyngeal reflux, and a left vocal cord cyst. Further workup by CT scan, edrophonium stimulation, laryngeal electromyography, and nerve conduction studies were unremarkable, and the patient started speech therapy. Due to worsening muscle symptoms, prednisone was increased during workup, leading to improvement in hoarseness. Subsequent prednisone tapers and dose escalations inversely correlated with hoarseness symptoms. Dose adjustment of methotrexate, in combination with continued speech therapy, led to gradual improvement of hoarseness and stability in cutaneous and systemic symptoms. Vocal cord paresis has been described in asymptomatic professional vocalists, but this patient's striking correlation between dermatomyositis flares with hoarseness and immunosuppressive titration is suggestive of treatment effect. While not typical, the patient's professional training may have provided exquisite sensitivity to her unilateral vocal cord paresis.

**Keywords:** Dermatomyositis; vocal cord paralysis

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