

Superior Laryngeal Nerve Block for Treatment of Neurogenic Cough

[James R. Duffy BS](#), [Juliana K. Litts MA](#), [CCC-SLP](#), [Daniel S. Fink MD](#)

Abstract

Objectives

This study aimed to add to the body of evidence for efficacy of Superior Laryngeal Nerve (SLN) blocks for treatment of neurogenic cough. Efficacy at short- and long-term intervals are presented as well as relationships with laryngoscopic findings.

Methods

A retrospective chart review of patients treated with SLN block between 2018 and 2020 was conducted. Patient demographics, videostroboscopic findings, and patient-subjective perception of outcomes were recorded and analyzed. Cough Severity Index (CSI) scores from pre-injection, short-term follow-up, and long-term follow-up were compared.

Results

Twenty patients underwent SLN block in the clinic setting. Four patients were excluded for incomplete records. The indication was neurogenic cough refractory to medical management and/or cough suppression therapy. Patients with short-term follow-up ($n = 13$) had statistically significant decrease in CSI scores, with a mean baseline CSI of 24.3 decreasing to 16.15 ($P = .006$). Patients with evidence of Vocal Fold Motion/Vibratory Abnormalities (VFA) ($n = 8$) showed improvement in short-term CSI scores, with a mean baseline CSI of 24.13 decreasing to 14.5 ($P = .004$). Those without evidence of VFA did not have statistically significant improvement in short-term CSI scores. At long-term follow-up, patients with VFA had improvements that approached statistical significance with a mean baseline CSI of 22.56 decreasing to 14.56 ($P = .057$), while patients without VFA showed no improvement.

Conclusions

Our results are consistent with previous literature indicating efficacy of SLN block. The presence of VFA may be an indicator of patients who experience increased therapeutic effect.

