

**Project No** : 3840/2008

**ROLE OF LARYNGEAL EMG IN DIAGNOSIS AND PROGNOSIS OF RECOVERY  
FROM VOCAL CORD PARALYSIS**

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**OBJECTIVES**

1. To evaluate the electrophysiological changes in LEMG tracings of subjects with vocal fold immobility
2. To prognosticate the outcome of VFI due to various causes.
3. To formulate a standardized protocol for recording and interpreting of LEMG.

**METHODOLOGY**

The study was conducted in a tertiary care hospital as a non randomized population based prospective study. 50 subjects meeting the selection criteria constituted the cases arm of the study. 50 volunteers meeting the selection criteria were included as controls. Selected subjects, both cases and controls underwent detailed clinical examination on the initial visit, including assessment of vocal cord movement by laryngoscopy using Voice Handicap Index. Part I of the study was to determine the pattern and characteristics of electrical activity of two pairs of intrinsic laryngeal muscles. Part II dealt with the changes in electromyographical parameters in a group of 50 patients with vocal fold immobility due to various causes.

**RESULTS**

The study demonstrated that patients with vocal fold paralysis, irrespective of etiology, commonly have symptoms of glottal incompetence including effortful voicing, and these symptoms can be tracked by routine application of a questionnaire based subjective rating scale (VHI). LEMG accuracy was better in predicting a positive test result with a fair or poor prognosis (persistent vocal fold immobility = 98.77%) than in predicting a negative test result with excellent prognosis (resolved motion = 68.3%).

**CONCLUSION**

The study found that laryngeal EMG is a useful research tool for assessing the neuro-muscular function of the larynx.