

Editorial

Larynx, as an organ of phonation, is an accepted fact and the vocal folds are synonymous with the production of the voice. Several other functions of the 'Voice Box' are known but not much importance has been given. Not many otolaryngologists are taught or even aware of the anatomy and physiology of larynx beyond the phonation.

Phylogenetically, the larynx developed as an organ for respiration or providing the needed air to oxygenate the lungs. As the evolution progressed, amphibians also had to protect the lungs from entry of water. So, the necessity made the vocal folds stronger and the sphincteric function had become important.

The human larynx has essentially three functions: (1) respiration, (2) protection of the lower respiratory tract and (3) phonation. The neuromuscular system effectively controls all three mechanisms with precision so that one can eat and swallow properly without food material going down into the lower respiratory tract. The nose and larynx also affect the quantity of the air being inspired. And, as a bonus, the mechanism of phonation has given the human being the ability to create the voice. We all know that primates can vocalize but cannot create a meaningful speech. As the brain has developed too the speech developed.

The sphincteric function of the larynx depends both upon the larynx and the extralaryngeal musculature also which lifts the larynx up behind the tongue to open the pharynx posteriorly and superiorly to facilitate a trouble-free swallow. It also requires the opening the cricopharyngeal sphincter at the same time. Abnormal swallow in the presence of a normal larynx or an abnormal supraglottic function with a normal cricopharyngeal sphincter can lead to food penetrating or entering the larynx causing several swallowing abnormalities. Cough—a good protective mechanism against laryngeal penetration or aspiration—can become a troublesome symptom and can be irritating.

Neurolaryngology has progressed and the symptoms of the disorders are related to abnormal swallow, and vocal cord movements can be dyspnea and stridor. Or, the patient is not able to swallow and same time aspirating causing pneumonias. The swallowing mechanisms have been well studied now and several newer diagnostic investigations are now identified.

The larynx is not only meant for phonation and also a nonfunctioning larynx also causes symptoms related to swallowing and respiration. We need to see the larynx in a wider perspective.



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