Laryngeal microsurgery has evolved with a better understanding of laryngeal microanatomy, improved preoperative and postoperative evaluation and assessment capabilities, and advancements in microinstrumentation and lasers. This surgery has gradually developed from gross resection of lesions to functionally oriented microdissections or excisions, with these evolving techniques now appropriately being called phonosurgery because the ultimate outcomes are directed at improvement in the voice. The fundamental principles of phonosurgery rely on an in depth understanding of the layered microstructure of the vocal folds and a growing understanding of the important proteins, cells and microarchitecture. Advances in the understanding of the vocal fold structure and healing have resulted in refinements in surgical techniques allowing for enhanced selectivity regarding preferred surgical approaches and improved outcomes.

This presentation will discuss the fundamental principles of phonosurgery for benign lesions of the vocal folds as well as the principles for maximal exposure for laryngoscopy, details of the phonosurgical microanatomy of the vocal folds and how they are distorted by various laryngeal pathologies. New modifications of instruments, devices and lasers that can aid the surgeon in optimizing their phonosurgical results will be presented. Technical caveats and alternative approaches will be presented for various benign vocal fold pathologies and these will be exemplified with specific cases and examples. Both simple and complex cases will be presented, while points of controversy will be highlighted.