Contents

1. Clinical Anatomy 1

KK Handa, Dhananjay Kumar

Anatomy of the Larynx *1*
Laryngeal Cartilages *2*
Laryngeal Ligaments *3*
Laryngeal Musculature *4*
Laryngeal Joints *5*
Laryngeal Innervation *6*

2. Voice Evaluation 9

KK Handa, Karan Aggarwal

Problems in Voice Evaluation *9*
Voice Test Battery *9*
Voice Material *9*
Voice Testing in Detail *10*
Acoustic and Electrolaryngographic Voice Evaluation *14*
Aerodynamic Measures *15*

3. Imaging of Benign Laryngeal Pathology: Expanding Horizons 17

Smita Manchanda, Ashu Seith Bhalla

Imaging Techniques in the Study of the Larynx *17*
Laryngeal Obstruction in the Pediatric Age Group *18*
Stenosis (Noncongenital) *19*
Cysts and Laryngoceles *20*
Benign Tumors or Mass Lesions of Larynx *20*
Vocal Cord Paralysis *23*
Trauma *24*

4. Laryngopharyngeal Reflux 27

KK Handa, Aru Chhabra Handa, Ashutosh Hota

Pathophysiology *27*
Mechanism of Symptoms *28*
Signs and Symptoms *29*
Effects of Reflux in Aerodigestive Tract *30*
Investigations *31*
Diagnosis *34*
Treatment *34*

5. Spasmodic Dysphonia 39

KK Handa

Etiopathogenesis *39*
Management *40*
Surgery for Spasmodic Dysphonia *41*

6. Care of Singing Voice 45
Jaya Kumar Menon
Voice Production 45
Assessing the Breath Support 46
Assessment of Singing Voice 47
Management 47
Vocal Hygiene 48

7. The Aging Voice 50
Joseph P Bradley, Michael M Johns
Geriatric Dysphonia 50
History and Examination 51
Rejuvenation of the Aging Voice 51
Professional Vocalist 52
Future Directions 52
Case Studies 53

8. Voice Therapeutic Approaches 56
Usha Rani
Symptomatic Voice Therapy 56
Physiological or Holistic Voice Therapy 59

9. Voice and Medicines 65
KK Handa
Steroids in Acute Laryngeal Conditions 65
Sex Hormones 65
Drugs Used for Gastroesophageal and Laryngopharyngeal Reflux 65
Drugs Used for Cough and Thick Mucus 66
Drugs Used In Allergic Rhinitis 66
Drugs Acting on Autonomic Nervous System 67
Psychotropic Agents 67

10. Vocal Fold Immobility 69
Mausumi N Syamal, Michael S Benninger
Etiology 69
Clinical Presentation 70
Evaluation or Workup 71
Unilateral Vocal Fold Immobility Management 72
Bilateral Vocal Fold Immobility Management 75

11. Laryngeal Framework Surgery 80
KK Handa
Advantages of the Laryngeal Framework Surgery 80
Procedures under Local Anesthesia 80

12. Pediatric Voice Disorders 84
KK Handa, M Haq
Pediatric Larynx *84*
Specific Disorders *85*

13. Office-based Laryngeal Procedures 91
KK Handa
Anesthesia and Patient Selection for Office Procedures *91*
Airway Evaluation *92*
Vocal Cord Injections *94*
Laryngeal Biopsy *95*
Secondary Tracheoesophageal Puncture *95*
Superficial Vocal Cord Injection *96*
Botox Injection *96*
Transnasal Esophagoscopy *96*

14. Recurrent Respiratory Papillomatosis 99
KK Handa, Anup Singh Yadav
Epidemiology *99*
Etiology *99*
Pathophysiology *100*
Mode of Transmission and Risk Factors of Disease *101*
Presenting Symptomatology *101*
Tracheostomy in Recurrent Respiratory Papillomatosis *102*
Extralaryngeal Spread *102*
Patient Evaluation *102*
Management *103*
Surgical Techniques *105*
Adjuvant Treatment Modalities *106*
Antireflux Therapy in Recurrent Respiratory Papillomatosis *109*
New Frontiers in Recurrent Respiratory Papillomatosis *110*
Recurrent Respiratory Papillomatosis Resources *111*

15. Lasers in Phonosurgery and Laryngology 116
KK Handa
Laser Safety Protocol *116*
Vocal Cord Cysts and Polyps *117*
Abductor Cord Paralysis *117*
Leukoplakia and Keratosis *117*
Recurrent Respiratory Papillomatosis *117*
Early Laryngeal Cancer *118*
Vocal Cord Polyps *119*
Vascular Lesions *119*
Laryngotracheal Stenosis *119*

16. Adult Laryngotracheal Stenosis **121**
KK Handa, Dhananjay Kumar
Etiology ***121***
Classification of Laryngotracheal Stenosis ***122***
Diagnosis ***123***
Management ***124***
Various Operative Techniques for Laryngotracheal Stenosis ***126***

17. Reconstruction Techniques for the Treatment of Anatomical Upper Respiratory Tract Anomalies in Children **133**
Ravindhra G Elluru
Overview ***133***
Pediatric versus Adult Upper Airway Anatomy ***133***
Laryngomalacia ***134***
Vocal Cord Paralysis ***134***
Posterior Laryngeal Clefts ***137***
Vascular Compression ***139***
Tracheomalacia ***139***
Complete Tracheal Rings ***139***

18. Pediatric Dysphagia **142**
J Paul Willging, Aliza P Cohen
Maturational Changes in Swallowing ***142***
Normal Swallowing Physiology ***143***
Mechanics of Swallowing ***144***
Clinical Presentation ***144***
Etiologies ***144***
Overall Evaluation ***145***
Diagnostic Workup ***146***
Management Approaches ***149***

19. Effects of Swallow Therapy in Oropharyngeal Dysphagia **151**
Divya Chandrasekhar
Indirect Therapeutic Strategies ***151***
Direct Therapeutic Strategies ***154***

20. Laryngeal Management in Sleep Apnea Patients **160**
Claudio Vicini, Filippo Montevecchi, Mohamed Rashwan, Marco Barbieri, Valeria Roustan, Fabiola Incandela, Giorgio Peretti
Drug-induced Sedation Endoscopy ***160***
Surgical Treatment Options ***161***
Postoperative Management ***164***

Index *165*