Contents

1. **Anatomy of Ear** 1
   Asok K Saha
   - Inner Ear (Labyrinth) 15

2. **Physiology of Hearing** 25
   Asok K Saha

3. **Audiology** 36
   Asok K Saha, Indranil Chatterjee
   - Pure Tone Audiometry 36
   - The Audiometer 36
   - Speech Audiometry 39
   - Special Tests for Hearing 40
   - Impedance Audiometry 41
   - Evoked Response Audiometry 43

4. **Hearing Loss** 50
   Asok K Saha
   - Hearing Loss 50
   - Sensorineural Hearing Loss (SNHL) 53
   - Noise-induced Hearing Loss (NIHL) 55
   - Ototoxicity 57
   - Immune-mediated SNHL 59
   - Familial Hereditary Progressive Sensorineural Hearing Loss 60
   - Sudden Sensorineural Hearing Loss (SSNHL) 61
   - Nonorganic Hearing Loss (NOHL) 63

5. **Physiology of Balance and Its Disorders** 67
   Asok K Saha

6. **Vestibular Function Tests** 77
   Asok K Saha
   - Clinical Testing 77
   - Laboratory Tests (For Vestibular Function) 83

7. **Diseases of the External Ear** 93
   Asok K Saha

8. **Otitis Media** 124
   Asok K Saha
   - Definition and Classification of Otitis Media 124
   - Acute Otitis Media (AOM) 125
   - Otitis Media with Effusion 128
   - Chronic Otitis Media 136
   - Tubercular Otitis Media (TOM) 165

9. **Facial Nerve and its Disorders** 169
   Asok K Saha
   - Anatomy of Facial Nerve 169

10. **Otosclerosis** 187
    Asok K Saha
    - Definition 187
    - Tympanometry 191

11. **Meniere's Disease** 208
    Asok K Saha
    - Definition 208
    - Meniere's Syndrome 208
    - Watanabe's Classification of Stages of MD 212
    - Treatment of Meniere's Disease 215

12. **Acoustic Neuroma (Vestibular Schwannoma)** 225
    Asok K Saha
    - Pathology 225
    - Growth of Tumor 225
    - Classification of AN 226
    - Signs and Symptoms 226
    - Investigations 227
    - Treatment 228
    - Conservative Management 233

13. **Vertigo–Approach and Management** 234
    Asok K Saha
    - Incidence of Disease 234

- Types of Vertigo 234
- Differential Diagnosis for Vertigo 234
- Approach to a Dizzy Patient 234
- Investigation 237
- Treatment 240

14. Deafness, Assessment of Deaf Child and Rehabilitative Measures 253

Asok K Saha

- Degree of Hearing Handicap 253
- Only One Ear Hearing 253
- Assessment of Deaf Child 254
- Etiology 254
- Prevention 257

15. Tinnitus 259

Asok K Saha

- Classification 259
- Causes 259
- Pathophysiology of Tinnitus 260
- Investigations in Tinnitus 262
- Clinical Examination 262
- Measurement of Tinnitus 262
- Management of Tinnitus 263
- Tinnitus Retraining Therapy (TRT) 264

16. Tumors of Temporal Bone 266

Jaimanti Bakshi, Abdul Wadood

- Classification 266
- Vascular Tumors 269
- Neural Tumors 272

17. Radiology of Ear 275

Chaturbhuj L Rajak

- External Ear 275
- Middle Ear 276
- Inner Ear 281

18. Cochlear Implant 290

KK Handa, Arpit Sharma

- History 290
- Components 290
- Preoperative Selection 291
- Importance of Neural Plasticity 291
- General Criteria for Cochlear Implant Surgery 292
- Preoperative Counseling 292
- Candidancy Categories 293
- Ideal Candidate for Cochlear Implant 293
- Surgical Technique 293
- Complications 298
- Postoperative Rehabilitation 299

19. Hearing Aids, Implants and Assistive Listening Devices 300

Indranil Chatterjee

- Components of Hearing Aid 300
- Types of Hearing Aids 300
- Electroacoustics Characteristics 303
- Hearing Aid Care 305
- Bone-anchored Hearing Aids 306
- Indications and Patient Selection Criteria 307
- Surgery 307
- Efficacy 307
- Middle Ear Vibrant Bridge 308
- Auditory Brainstem Implants 310
- Electric Acoustic Stimulation 311
- Assistive Listening Devices 313

20. Biofilms in Otology 316

Dev Roy

- Diagnosis 317
- Role in Otitis Media with Effusion 317
- Role in Cholesteatoma 318
- Cochlear Implant Infection 318
- Treatment 318

21. Anesthesia for Ear Surgery 320

Enakshi Saha

- Local Anesthesia 320
- General Anesthesia 321

22. Superior Canal Dehiscence Syndrome: Diagnosis and Management 324

Dev Roy, Anirvan Banerjee

23. Middle Ear Surgery 329

Asok K Saha

- Surgical Approaches to Middle Ear and Mastoid Diseases 329
- Tympanoplasty 333
- Ossiculoplasty 337
- Austin's Classification 338
- Mastoid Surgery 343
- Endoscopic Ear Surgery 353

Index 357