

POSTDOCTORAL FELLOWSHIP

OTOLGY (encompassing microscopic and endoscopic techniques)

Duration of the course: 1 year

Aim: To introduce and broaden the fundamentals of otologic surgery encompassing microscopic technique and the developing endoscopic advancements.

Background: Indian doctors are clinically and surgically sound than our counterparts elsewhere. But we need to shine in the international front by proper training. The concept of endoscopic ear surgery fellowship is probably the first of its kind in INDIA. We are pioneers & trend setters in various fields. We will once again be an eye opener for the whole nation. Also worldwide, there are only very few institutions doing this work. Future generation should be taught this art & further research is mandatory in this yet uncharted field, so that many more innovations can be made to treat varied pathologies and to keep this specialty alive.

Endoscope has become a very useful tool in every otolaryngologist hands. For the many years the operating microscope has revolutionized the field of otology and many of the surgeries are the result of the enhanced abilities with the operating microscope. In spite of the advantages with the microscope, there remains many hidden area in the ear not visualized with the microscope. The introduction of the endoscope has enabled visualization of the hidden areas of the ear and is opening up new vistas in ear surgery. Hence a comprehensive knowhow of the both these techniques will help in tackling any obstacle in otologic pathology during surgery and improves the surgeons competence and success rates.

Goals of the Fellowship:

- A) To propagate endoscopic ear surgery techniques as it has got a bright future in the field of otology
- B) Using this minimally invasive technique, with endoscope being a portable tool, we can reach every nook and corner to cure patients off their disease.
- C) To develop proficiency in clinical evaluation of the disease and patient care
- D) To plan the appropriate management algorithm for the concerned problem- medical or surgical
- E) To get oriented with endoscopic anatomy of the Ear
- F) To use endoscope as a surgical tool to obtain maximal clearance of disease
- G) The training in microscopic technique will be included in this programme as it is an added tool for certain challenging cases along with the endoscopic approach.

Detailed syllabus

1. Basic Sciences
 - Embryology of the Ear
 - Anatomy of Ear
 - Middle ear spaces and its significance
 - Anatomy of the Facial Nerve
 - Biofilms in relation to ear implants
 - Mechanism of hearing
 - Middle ear Ventilation .
 - Microbiology of ME flora
 - Biochemistry of Inner ear fluids.
2. Lateral Skull base:
 - Surgical anatomy
 - Clinical neuroanatomy
 - Posterior Skull base
3. Investigations in otology
 - Audiological assessment- PTA, Impedence audiometry
 - Special tests for hearing evaluation
 - Facial nerve assessment
 - Temporal bone imaging
 - ENG, VEMP, VHIT
4. Anesthesia in Ear procedures
5. Emergency in otology
 - Foreign body ear
 - Temporal bone trauma
 - Sudden SNHL
 - Facial nerve palsy
6. Biomaterials used in ENT
7. Pharmacology in hearing and balance disorders
 - Drug delivery systems in ear
 - Antibiotics
 - Analgesics and anesthetic agents
 - Role of antihistamines
 - Topical and systemic steroids
8. Anatomic orientation in microscopic and Endoscopic ear surgery
9. Endoscope as a diagnostic tool
10. General guidelines for endoscopic ear surgery
11. Techniques of instrumentation in ear surgery
12. Preoperative planning and counseling for ear surgeries

13. Disorders of External Ear and surgical management

- Congenital
- Otitis externa/ otomycosis
- Malignant Otitis externa/ Skull base osteomyelitis
- Exostosis/ osteoma
- Malignant tumours of external ear

14. Disorders of Middle ear

- Acute suppurative otitis media
- Secretory otitis media
- Chronic suppurative otitis media
- Atticoantral disease
- Congenital cholesteatoma
- Complications and sequelae of otitis media
- Functional endoscopic ear surgery
- Otosclerosis
- Facial nerve palsy
- Tumours of middle ear

15. Disorders of Inner ear

- Congenital/ syndromes
- Menieres disease
- Acoustic neuroma
- SSNHL

16. Malignancies in ear

17. Middle ear reconstruction

18. Approaches to Lateral skull base disorders

19. Combined approach in middle ear surgery.

20. Audiology – recent trends

21. Implantable hearing devices

22. Hands on cadaveric dissection/Surgeries – Endoscopic and microscopic

- Myringotomy and grommet insertion
- Staged Tympanoplasty
- Ossiculoplasty
- Stapedectomy
- Cortical /Modified radical mastoidectomy
- Endoscopic tympano- mastoidectomy
- Facial Nerve decompression
- Intratympanic Injections under LA
- Glomus tumor excision
- Surgeries for petrous apex lesions – endoscopic/ combined
- Cochlear implant
- Middle ear Bio mechanics and Ossicular reconstruction including passive Middle ear Implants

- Osseo integration/ear implants.
- Otoradiology – meetings
- Middle ear Radiology
- Middle ear physiology
 - e.g Mallen with Mobile foot plate, Mallen with fixed foot plate
- Medical Negligence
- Biostatistics