

POST – DOCTORAL FELLOWSHIP PROGRAMME IN MAXILLO FACIAL DISTRACTION OSTEOGENESIS

Duration of training

One year full-time training program culminating in a fellowship in DO

Syllabus for study:-

General- Maxillofacial

1. Introduction to Craniofacial Deformities
2. Oral & maxillofacial surgical techniques,
3. Patient evaluation& management,
4. Hospital Protocol and procedure
5. Laboratory investigation and interpretation
6. Fluid and electrolyte management
7. Blood transfusion
8. Basic Patient management
10. Management of medically compromised patients
11. Management of medical emergencies
12. Management of post-operative patient including nutrition,
13. Management of wound care in DO
14. Applied pharmacology
15. Preparing a patient for General Anesthesia
16. Induction of Anesthesia
17. Peri-operative patient management

Distraction Osteogenesis proper:-

- 1) Historical development and evolution of Distraction Osteogenesis,
- 2) Biological Basis of,
 - New bone formation,
 - Mechanism of new bone formation,
 - Tissue response in DO,
 - Tooth movement in bone regenerate,
 - Placement of implant in bone regenerate,
- 3) Distraction Histiogenesis,-
 - Effect of DO on Skeletal muscles,
 - Effect of DO on peripheral nerves,
 - Effect of DO on Gingival tissues,
 - Effect of DO on periodontal ligament,

- Effect of DO on TM Joint.

4) Biomechanical consideration of DO

5) Armamentarium used in Distraction osteogenesis.

6) Indications for DO

7) Classification of devices for DO,

8) Surgical procedure in DO,

- Mandibular DO,
- Maxillary DO,
- Simultaneous mandibular & Maxillary DO,
- alveolar distraction,
- Rigid external distraction of maxilla / midface,
- intra oral distraction of maxilla and mandible,

9) Transport distraction osteogenesis,

- Basic principles,
- Craniofacial bone transport,
- mandibular bone transport,
- intra oral and extra oral mandibular bone transport,

10) Midface Distraction osteogenesis,

- DO for severe cleft maxillary deficiency,
- Three dimensional midface distraction,

11) Craniofacial distraction osteogenesis,

12) potential mistakes and complications,

Suggested Reading

1. Manual of Oral and Maxillofacial Surgery – Daniel Laskin
2. Craniofacial Distraction Osteogenesis – Samchukov
3. Distraction osteogenesis – Bell Geurerro,
4. Oral and Maxillofacial Surgery – Fonseca Vol 1
5. Wound healing – Oral and Maxillofacial Trauma – Fonseca Vol 1

6. Journals- Orthodontic journal and Oral & maxillofacial surgery (both International and National).

Qualification for admission:- MDS in Oral & Maxillofacial surgery,
(preference may be given for the years of experience after MDS in selection.)

Basic Requirements for the Institute to start the course:

1. The Dental college/ Dental Institute/ private hospitals specialized in maxillofacial surgical procedures, should be a well equipped hospital with in-patient facilities, operating theatre, wards, ICU, pharmacy and laboratory facilities.
2. Anesthetists trained in the management of pediatric patients, should be available as part time faculty.
3. Should have a regular inflow of patients with congenital malformations, trauma and craniofacial deformities. Institutes performing cleft lip and palate surgeries under smile train project may be given priority for starting course in DO.
4. Should be having infrastructure and patients to support at least 5 cases of DO in one year which may include any of the following.
 - α. Midface DO
 - β. Mandibular DO
 - χ. Alveolar DO
 - δ. Craniofacial DO
 - ε. Transportation distraction osteogenesis.

The trainee must perform night duty on theatre days to get trained in the postoperative management of the DO patient.

The trainee must be exposed to a minimum of 3 cases of midface and mandibular DO in this period of training. The others are optional.

The trainee should be proficient in the clinical assessment, treatment planning and work-up of a potential patient for surgery under general anesthesia

The trainee is expected to perform at least 2 cases under supervision in this period and assist a minimum of 3 cases.

Didactic and interactive sessions

The trainee should participate,

Journal club once a month,

case presentation once in two months and

seminar once in three months.

Log book maintenance,

Publication – one journal in national or international

Examination- periodical,

Examination Pattern
Practical-

1. Presentation of two clinical cases (recorded) / General viva.
2. Practical exercise of treatment planning for DO including cephalometry and Surgical treatment objective.
3. Demonstration of DO device fixation in a skull- maxilla and mandible.

MAXILLOFACIAL DISTRACTION OSTEOGENESIS - GUIDELINES

Infrastructure/Staff Requirements :

Name of the Institution/Hospital :
 Name of the Trust / Society :
 Date of Inspection :
 Address of the Institution
 (with E-mail, Fax No ., Tel.Nos. & Mobile No.) :

Name of the Inspection Team
 (Convenor and Members)
 with their address :
 Institution/Department should be
 in existence for a minimum period :
 of five years

Specifications	Requirements	Available	Recommendations
Name of the Course Director	i. Post-graduate Degree in the field of Oral & Maxillofacial surgery with minimum 9 years teaching or clinical experience in the concerned specialty. ii. With at least 2 publications in Index Journals (one in Distraction osteogenesis) iii. Full time Faculty iv. Must have attended a Speciality Conference in Oral & Maxillofacial surgery. v. Must have extra proficiency in Distraction osteogenesis in the form of International or National key-note lectures, conducting workshops, training programmes, examinership, published research work etc. in Distraction osteogenesis.		

Teaching Faculty	Reader in OMFS- 4 years of teaching or clinical experience 1 (part time). Reader in orthodontics-1-4 years of teaching or clinical experience.(part time) Anaesthetist -1, ii. Part-time permitted iii.Must have attended a Specialty Conference. Duty doctor-1 (MBBS).		
Administrative Staff	i. Front office Staff -1 ii . Dental Chair side Assistant.-3 iii.Radiographer/DarkRoom Assistant-1 iv. Dental Lab Technician - 1(or tie up with a Dental Lab less than 2 kilometers away)		
Out Patient	General Out patients - 30 per day.		
Equipments	Apart from the regular surgical instruments for major operation theatre, the following equipment is required. Distraction osteogenesis kit -1, Fibreoptic bronchoscope-1, Bone cutting saw- 1 (oscillating, reciprocating, sagittal).		
<u>Built-up Area</u>	The built up area as specified in the DCI Norms (for three postgraduates) for admission of three candidates		
Multi Media	One number,		
Library	Minimum – 5 Books on Distraction osteogenesis and 2 books each in Oral & maxillofacial surgery and Basic medical sciences. 4 national and 2 International		

	Journals and Internet Connection.		
Laboratory/ Skills Lab	Enclosed		
Maximum Intake Maximum Intake of students	To start the course – Maximum permission 3 students. Increase of seats to a maximum of 6 students will be permitted only on completion of the first batch.		
Registration Details			

INFRASTRUCTURE

All infrastructure given is for three students. This must be increased proportionate to increase in seats.

A. BUILT-UP AREA

Infrastructure	Requirement (sq ft)
Administrative Area (Reception, office, Medical Record)	150
Minor operation theatre for PG students (150x3)	450
Radiology	Existing facilities
Sterilization Area	100
Waste Disposal Area	as prescribed by the TNPCB
Amenities (Night duty rooms for doctors)	100
Major operation theatre with all facilities	300
Nurses station	100
Seminar Hall and Library	150
Total	1,350+ waste disposal area

B. EQUIPMENTS

i..Dental Chair and Unit - 3 Nos.

Electrically operated, spittoon attachment, Halogen Light with 2 intensity, Air venturi suction, micromotor control, 3 way syringe, X-ray viewer, instrument tray Dental Operators stool with height adjustment with shadowless lamp, spittoon, 3 way syringe, instrument tray and suction, micromotor, airtor.

ii. Radiology Equipments:-

- a. Intra Oral X Ray Unit - 1
- b. RVG Unit - 1
- c. Panoramic X Ray Unit - 1
- d. Lead aprons - 2
- e. Dosimeter Badge - 1

iii. Camera/SLR - 1 Unit

iv. Computer with accessories - 2

v. Sterilization Equipments

- a. Autoclave -1
- b. Vapoclave-1
- c. Ultra Sonic Cleaner-1
- d. Packing and Sealing Unit-1

vi. Hospital waste Disposal

- a. Colour Coded Bins
- b. Needle Destroyer+ syringe cutter,
- c. Radiology Waste Disposal System.

vii. Seminar Hall and Library (one each)

- a. LCD Projector,
- b. Computer with necessary accessories and internet facilities
- c. Photo Copier
- d. Scanner
- e. Seating furniture
- f. Cupboard

ix. Laboratory Equipments

1.	Heavy Duty Lathe	-1
2.	Model Trimmer	-1
3.	Steam Cleaner	-1
4.	Face Bow and Semi Adjustable Articulator	-1
5.	Micromotor	-3

FOR 6 SEATS

1. The Duration of the training,
2. The Syllabus,
3. The Basic requirements for the Institute,
4. The Didactic sessions,
5. The examination pattern
may all be the same.

There can be change in the following,for six seats:

1. One Reader in Oral & Maxillofacial surgery in addition to the existing Reader in OMFS,
2. Electrically operated fully loaded Dental Chair - 6 No.s,
3. Minor operation theatre should be 900 sq.ft instead of 450 sq.ft.
4. Total Built up area may be 2700 sq.ft in addition to the waste disposal area.
5. The number of o.p. cases suggested for three seat may be doubled.